4. A Monograph of the Bornean *Lycænidæ*.

By Hamilton H. Druce, F.Z.S., F.E.S.

[Received June 14, 1895.]

(Plates XXXI.–XXXIV.)

Since my father, Mr. Herbert Druce, published, in the Proceedings of this Society for 1873, a list of Bornean butterflies obtained by Mr. (now Sir Hugh) Low in the neighbourhood of Labuan, very little has been written on the subject at all and scarcely any additions have been made to our knowledge of the *Lycænidæ*. Messrs. Distant and Pryer have described a few, obtained at Sandakan by Mr. Pryer, in the 'Annals and Magazine of Natural History' (ser. 5) vol. xix. 1887, as also has Mr. Grose Smith in vol. iii. (ser. 6), 1889, of the same periodical; whilst Mr. de Nicéville has mentioned some species as occurring in Borneo in his work on the Butterflies of India, Burmah, and Ceylon, and has described one or two in the Journal of the Bombay Natural History Society, 1891. In the Journal of the Asiatic Society of Bengal, vol. lx. 1891, Mr. W. Doherty has recorded a few species, and described a new one of the genus *Nacaduba*, and Dr. Butler, in an account of a collection of Lepidoptera obtained by Mr. W. B. Pryer at Sandakan published in the Proceedings of this Society (P. Z. S. 1892, p. 121), has described a single species of the genus *Arhopala*. These papers, with the addition of one or two solitary descriptions, are all that I can discover as referring to the *Lycænidæ* of the region dealt with here.

The large amount of material which I have worked upon for this paper is partly contained in Messrs. Godman and Salvin's collection, and my thanks are due to those gentlemen for kindly allowing me free use of their fine series, and also to Dr. Staudinger, to whom I am also much indebted for the opportunity of examining the whole of the specimens collected on Kina Balu by Waterstradt and at Labuan by Wahnes. This collection from Kina Balu, containing as it does examples of a large number of new species, I have found of the greatest importance; and to those interested in the geographical and other features of this great mountain I would recommend a perusal of Mr. J. Whitehead's book, 'The Exploration of Kina Balu, N. Borneo.' Besides these collections, we have in our own possession a considerable number of specimens from Kina Balu, Elopura, Sarawak, and Sandakan.

Dr. Staudinger informs me that the species labelled "Labuan," captured by Waterstradt and Wahnes, are not from the small island on the N.W. coast but from the mainland opposite.

Mr. Herbert Druce recorded 71 species of the family in his list, and this number I am now able to increase to about 220, inclusive of about a dozen species of the genus *Arhopala* which are either undetermined or unnamed. Mr. de Nicéville enumerates 402 species in 'The Butterflies of India etc.,' so that we have already

W.Purkiss lith.

West, Newman imp.

Bornean Lycænidæ.

W Purkiss lith.

West, Newman imp.

Bornean Lycænidæ.

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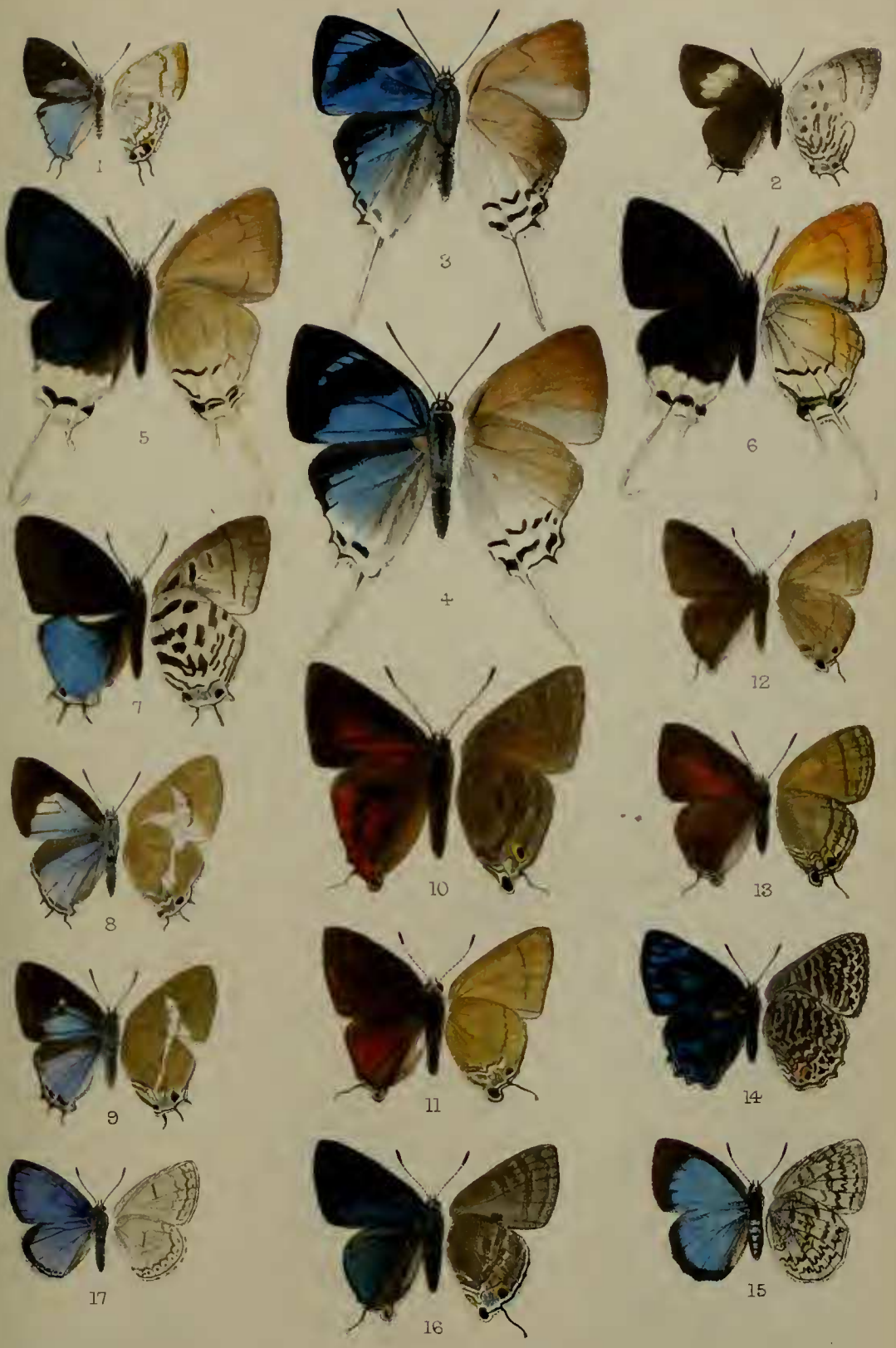

W.Purkiss lith.

West,Newman imp.

Bornean Lycænidæ.

from Borneo, in which island but two or three localities have been anything like worked, more than half as many species as have been found in the extensive region of which his book treats. In 'Rhopalocera Malayana' Mr. Distant has recorded 133 species of the family, so that with these facts one may conclude that the *Lycænidæ* are very well represented in Borneo. Mr. H. J. Elwes has expressed his opinion that when the higher mountain-ranges of Java, Sumatra, Borneo, &c. come to be explored there will be found to be a considerable resemblance between the butterflies inhabiting them and those of the Himalayas; and so far as the *Lycænidæ* are concerned I think a perusal of the following pages will confirm this.

Besides the number of types of Bornean species which are contained in Messrs. Godman and Salvin's collection, Dr. Staudinger has kindly sent me the whole of his types of Palawan species described in 'Iris,' vol. ii., which I have found very useful and in some cases absolutely necessary for correct identification.

The arrangement here followed is that of Mr. de Nicéville's admirable work, 'The Butterflies of India, Burmah, and Ceylon.'

The following is a list of the species noted in this paper—those marked with an * being new species described from adjacent localities:—

Gerydus gigas, sp. n., p. 559.
„ symethus, *Cr.*, p. 559.
„ petronius, *Distant & Pryer*, p. 559.
„ innocens, sp. n., p. 560.
„ biggsii, *Distant*, p. 560.
„ philippus, *Staud.*, p. 561.
„ vincula, sp. n., p. 561.
Paragerydus horsfieldi, *Moore*, p. 561.
„ waterstradti, sp. n., p. 562.
„ pyxus, *de Nicév.*, p. 562.
„ moorei, sp. n., p. 562.
„ taras, *Doherty*, p. 563.
„ caudatus, *Grose Smith*, p. 563.
„ fabius, *Dist. & Pryer*, p. 563.
„ aphocha, *Kheil*, p. 563.
Allotinus subviolaceus, *Feld.*, p. 563.
„ audax, sp. n., p. 564.
„ nivalis, *Druce*, p. 564.
„ unicolor, *Feld.*, p. 564.
Logania regina, *Druce*, p. 564.
„ obscura, *Dist. & Pryer*, p. 565.
„ staudingeri, sp. n., p. 565.
Cyaniriodes libna, *Hew.*, p. 565.
Poritia sumatræ, *Feld.*, p. 566.
„ phormedon, sp. n., p. 566.
„ pellonia, *Dist. & Pryer*, p. 566.
„ phaluke, sp. n., p. 567.
„ philota, *Hew.*, p. 567.
„ *phare, sp. n., p. 567.
„ plateni, *Staud.*, p. 567.
Poritia phama, sp. n., p. 568.
„ phalena, *Hew.* ♂, p. 568.
„ *solyma*, de Nicév. ♀, p. 568.
„ pheretia, *Hew.*, p. 569.
„ phalia, *Hew.*, p. 569.
„ philura, sp. n., p. 569.
Simiskina pharyge, *Hew.*, p. 569.
*Poriskina phakos, sp. n., p. 570.
Pithecops hylax, *Fab.*, p. 570.
Neopithecops zalmora, *Butler*, p. 570.
Spalgis epius, *Westw.*, p. 570.
„ nubilus, *Moore*, p. 571.
Taraka hamada, *Druce*, p. 571.
Megisba malaya, *Horsf.*, p. 571.
Cyaniris dilectissima, sp. n., p. 571.
„ puspa, *Horsf.*, p. 572.
„ placidula, sp. n., p. 572.
„ lugra, sp. n., p. 573.
„ *phuste, sp. n., p. 573.
„ selma, sp. n., p. 573.
„ strophis, sp. n., p. 573.
„ plauta, sp. n., p. 574.
„ ripte, sp. n., p. 574.
Lycænopsis haraldus, *Fab.*, p. 575.
Zizera otis, *Fab.*, p. 575.
Lycænesthes emolus, *Godt.*, p. 575.
„ lycænina, *Feld.*, p. 575.
Niphanda reter, sp. n., p. 576.
Luthrodes (nov.) mindora, *Feld.*, p. 576.
Everes argiades, *Pallas*, 577.
Nacaduba pavana, *Horsf.*, p. 577.
„ lugine, sp. n., p. 577.
„ angusta, *Druce*, p. 577.
„ atratus, *Horsf.*, 578.

Nacaduba beroë, *Feld.*, p. 578.
„ bhutea, *de Nicév.*, p. 578.
„ ardates, *Moore*, p. 578.
„ aluta, *Druce*, p. 578.
„ ancyra, *Feld.*, p. 579.
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„ limes, sp. n., p. 581.
„ virgulatus, sp. n., p. 581.
„ cærulea, *Druce*, p. 582.
„ abdul, *Distant*, p. 582.
„ osias, *Röber*, p. 582.
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„ celeno, *Cr.*, p. 583.
„ optimus, *Röber*, p. 583.
„ cleodus, *Feld.*, p. 583.
„ zebra, sp. n., p. 583,
„ lividus, sp. n., p. 584.
„ aratus, *Cr.*, p. 584.
„ adana, *Druce*, p. 584.
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Catochrysops strabo, *Fab.*, p. 585.
„ cnejus, *Fab.*, p. 585.
„ pandava, *Horsf.*, p. 585.
Tarucus waterstradti, sp. n., p. 585.
„ plinius, *Fab.*, p. 586.
Castalius rosimon, *Fab.*, p. 586.
„ ethion, *Doub.*, *Hew.*, p. 586.
„ elna, *Hew.*, p. 586.
„ roxus, *Godt.*, p. 587.
Polyommatus bœticus, *Linn.*, p. 587.
Amblypodia narada, *Horsf.*, p. 587.
„ anita, *Hew.*, p. 587.
Iraota rochana, *Horsf.*, p. 587.
„ nila, *Distant*, p. 588.
Surendra palowna, *Staud.*, p. 588.
Arhopala centaurus, *Fab.*, p. 589.
„ agnis, *Feld.*, p. 589.
„ amphea, *Feld.*, p. 589.
„ atosia, *Hew.?*, p. 589.
„ aroa, *Hew.*, p. 590.
„ pryeri, *Butl.*, p. 590.
„ allata, *Staud.*, p. 590.
„ achelous, *Hew.*, p. 590.
„ anunda, *Hew.*, p. 590.
„ elopura, *H. H. Druce*, p. 590.
„ apidanus, *Cr.*, p. 590.
„ olinda, *Druce*, p. 591.
„ cæca, *Hew.*, p. 591.
„ aurea, *Hew.*, p. 591.
„ farquhari, *Dist.*, p. 591.
„ horsfieldi, *Pagenst.*, p. 591.
„ anniella, *Hew.*, p. 592.
„ agesias, *Hew.*, p. 592.
„ agesias, var. kinabala, *St.*, *MS.*, p. 592.
„ similis, sp. n., p. 592.
„ myrtale, *Stgr.*, p. 592.
„ amphimuta, *Feld.*, p. 592.
„ antimuta, *Feld.*, p. 593.
Arhopala alaconia, *Hew.*, p. 593.
„ epimuta, *Moore*, p. 593.
*Mahathala gone, sp. n., p. 593.
Curetis tagalica, *Feld.*, p. 594.
„ nesophila, *Feld.*, p. 594.
„ minima, *Dist. & Pryer*, p. 594.
„ æsopus, *Fab.*, p. 594.
„ malayica, *Feld.*, p. 595.
Ilerda kiana, *Grose Smith*, p. 595.
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„ sannio, sp. n., p. 596.
„ devana, sp. n., p. 597.
„ calculis, sp. n., p. 598.
Aphnæus syama, *Horsf.*, p. 598.
„ lohita, *Horsf.*, p. 599.
„ vixinga, *Hew.*, p. 599.
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„ maculatus, *Hew.*, p. 599.
„ longinus, *Fab.*, p. 599.
„ dominus, sp. n., p. 600.
„ mantra, *Feld.*, p. 600.
„ cyrus, sp. n., p. 600.
„ tussis, sp. n., p. 601.
„ isæus, *Hew.*, p. 601.
„ cato, sp. n., p. 601.
„ travana, *Hew.*, p. 602.
„ donatana, *de Nicév.*, p. 602.
Purlisa giganteus, *Dist.*, p. 602.
Suasa liris, *Staud.*, p. 603.
Thamala marciana, *Hew.*, p. 603.
Hypolycæna erylus, *Godt.*, p. 603.
„ thecloides, *Feld.*, p. 603.
„ skapane, sp. n., p. 604.
„ phemis, sp. n., p. 604.
Chliaria mimima, sp. n., p. 605.
Zeltus etolus, *Fab.*, p. 605.
Pseudomyrina martina, *Hew.*, p. 606.
Virgarina scopula, *Druce*, p. 607.
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„ teunga, *Grose Smith*, p. 608.
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„ pallida, *Druce*, p. 610.
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„ affinis, sp. n., p. 611.
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„ „ var. unicolor, *Staud.*, p. 613.
„ estella, *Hew.*, p. 614.
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„ cinesia, *Hew.*, p. 614.

Gerydus, Boisd.

Gerydus gigas, sp. n. (Plate XXXI. fig. 3 ♂.)

Miletus gigas, Staud. MS.

♂ ♀. Allied to *G. gigantes*, de Nicév., in size and form, but differing from that species by the basal area of the fore wing being greyish black, extending to the median nervules, and in the female reaching nearly across the white area to the apical black margin, and by the hind wings being uniform greyish black. The underside differs from *G. gigantes* by the male only possessing rather larger white patches on the fore wing.

Kina Balu (*Waterstr.*). Type Mus. Staud., Mus. Druce.

This fine species can be at once distinguished from *G. gigantes* from N.E. Sumatra by the black basal area of the fore wing and by the black hind wings. The male of *G. gigantes* has "a small portion of the base of the third median nervule prominently swollen;" in *G. gigas* this swollen portion is nearly $\frac{1}{5}$ inch long.

This is allied to *G. ancon*, Doherty, but the description, however, does not quite fit it, notably as regards the "marginal dark line" on the underside, which is absent in *G. gigas*. The figure given by Mr. Doherty of the male is much like *gigas* ♀.

Gerydus symethus.

Papilio symethus, Cr. Pap. Ex. ii. pl. cxlix. figs. B, C (1777).

Labuan (*Wahnes* and *Low*); Sandakan (*Pryer*).

The female from Sandakan has the white on the hind wing reduced to a discal streak and is very pale on the underside, but the markings appear to be the same as in the typical form.

Gerydus petronius.

Gerydus petronius, Distant & Pryer, Ann. Mag. Nat. Hist ser. 5, xix. p. 266 (1887).

Elopura.

I have not seen this species, the female only of which is described. We possess specimens from Nias I. which are referred to *G. symethus*, but which possibly are *G. petronius* if this should prove to be a distinct species.

GERYDUS INNOCENS, sp. n. (Plate XXXI. fig. 4 ♂.)

Miletus innocens, Staud. MS.

♂. Upperside: fore wing white, the apical half and outer margin to anal angle black, greyish along the costa to about the middle of the cell: hind wing white, slightly tinged with greyish; costal margin broadly black; anal and outer margins narrowly dusted with blackish brown, darkest at the tips of the nervules. Underside: ground-colour pale grey, with dark chocolate markings and spots arranged much as in *G. symethus*, but the short band near the apex of the fore wing straighter and broader and the basal streak below the cell ending abruptly where it meets the white, just beyond the base of the lower median nervule, not running along the nervules as in *G. symethus*.

♀. Upperside differs only from male by the white area of the fore wing being slightly more extensive, by the purer white of the hind wing, which has the outer margin dentated rather more strongly than *G. symethus* ♂, the cilia only being fuscous. Underside as male, but with the white discal area slightly larger.

Expanse, ♂ $1\frac{4}{5}$, ♀ $1\frac{1}{2}$ inch.

Kina Balu (*Waterstr.*). Types Mus. Staud.

G. innocens is much like *G. gigantes* on the upperside, but is very different below, and the dentated outer margin of the hind wing of the female also distinguishes it. The swollen base to the third median of the fore wing in the male, which is present, so far as I know, in all other species of the genus, is entirely wanting, in *G. innocens*. The coloration of the underside is quite different from *G. symethus*. Dr. Staudinger has sent me a pair of this interesting butterfly.

GERYDUS BIGGSII.

Gerydus biggsii, Distant, Rhop. Malay. p. 206, pl. xxii. fig. 12, ♀ (1884).

Gerydus gopara, de Nicév. Butt. India etc. iii. p. 25 (1890).

Kina Balu (*Waterstr.*); Sandakan (*Pryer*); Labuan (*Low* and *Wahnes*).

This is a somewhat puzzling species, as it appears to vary considerably in the width of the white band on the fore wing: in males from Sandakan and Kina Balu it is shortest and narrowest, and in one specimen in Messrs. Godman and Salvin's collection is practically reduced to a median patch, being almost all below the third median nervule; in a male from Labuan in Dr. Staudinger's collection it is broad and long and the basal area is much paler than usual. The females before me from Kina Balu are much like the male noted above from Labuan and present a very different appearance from Mr. Distant's figure.

GERYDUS PHILIPPUS.

Miletus philippus, Staud. Lep. Palaw. p. 92, pl. i. fig. 2 (1889).

Gerydus irroratus[1], Semper (nec Druce), Schmett. Phil. Insel. p. 162, pl. xxxi. figs. 10, 11, 12 (1889).

Labuan (*Low* and *Wahnes*).

Both sexes of this species from Borneo agree exactly with Herr Semper's figures. Dr. Staudinger has kindly sent me his types for examination, and I quite agree with Herr Semper (*vide* Supp. Schmett. Phil. Insel.) that they are conspecific; but as *irroratus*, Druce, falls before *boisduvali*, Moore, Dr. Staudinger's name must stand.

Dr. Staudinger possesses a female from S.E. Borneo, near Banjarmasin, taken by Wahnes, which may possibly represent another species, as the band on the upperside is very narrow and obscured and the underside is of a reddish-brown hue; but without seeing a male I do not care to describe it.

The specimen referred to *M. zinkenii*, Feld., by Mr. Herbert Druce (P. Z. S. 1873, p. 348), is an example of *G. philippus*.

GERYDUS VINCULA, sp. n. (Plate XXXI. figs. 9 ♂, 10 ♀.).

♂. Upperside uniform dull brown, with a pale oval spot at the base of the third median nervule of the fore wing, which just surrounds the swollen portion of the vein. Underside much like that of *G. philippus* but paler, and with a submarginal band of confluent markings extending from the apex to the outer angle of the fore wing and with the marginal spots very indistinct.

♀. Form of *G. philippus*: upperside uniform dull brown without markings; underside as male.

Expanse, ♂ $1\frac{3}{10}$, ♀ $1\frac{1}{10}$ inch.

Borneo.

This obscure species is, I believe, the only one of the genus which has the ultra-median band on the underside of the fore wing extending across the wing to the anal angle—it usually ends somewhere about the third median nervule; the sombre colouring of the female is also unusual. The types are in Messrs. Godman and Salvin's collection, the male received from Dr. Staudinger and the female formerly in Bates's cabinet, neither being exactly localized[2].

PARAGERYDUS, Distant.

PARAGERYDUS HORSFIELDI.

Miletus horsfieldi, Moore, Horsf. & Moore, Cat. Lep. Mus.

[1] I have carefully examined the type of Mr. Herbert Druce's *Miletus irroratus*, which is in Messrs. Godman and Salvin's collection, and find that it is quite impossible to separate it from *G. boisduvali*, Moore.

[2] I have not included the *Megalopalpus simplex*, described by Herr Röber ('Iris,' i. p. 51, pl. iv. f. 1. 1885) from Borneo, as I am of opinion that it is an African species closely allied to, or identical with, the *Pentila zymna*, Doub., Hew. I have not seen *M. simplex*, and judge from the figure only, which is from a photograph.

E. I. C. vol. i. p. 19, pl. 1 *a*. fig. 2 (1857); Druce, P. Z. S. 1873, p. 347.

Kina Balu (*Waterstr.*); Labuan (*Waterstr.* and *Low*); Elopura (*Pryer*); S.E. Borneo (*Wahnes*).

Mr. Pryer took the species in March.

Paragerydus waterstradti, sp. n. (Plate XXXI. figs. 1 ♂, 2 ♀.)

♂. Upperside allied to *P. horsfieldi*, Moore; same shade of brown, but with the discal patch more elongated and less distinct. Underside pale brown, with darker markings and spots and a marginal row of black spots inwardly bordering white dots.

♀. Upperside uniform dull brown, not paler discally in the fore wing; underside as male, but ground-colour rather paler.

Ab. absens, nov.

♀. Upperside as typical female; underside pale brownish cream-colour, with the larger brown markings only present, the wavy lines being entirely wanting.

Expanse, ♂ $1\frac{7}{10}$–$1\frac{1}{2}$, ♀ $1\frac{3}{5}$–$1\frac{1}{2}$ inch.

Kina Balu (*Waterstr.*). Mus. Staud. and Druce.

P. waterstradti differs from *P. horsfieldi* by the more elongate discal band and by the underside being usually darker. It is also a smaller insect, noticeable especially in the males. The variety described above presents a very curious appearance.

Paragerydus pyxus.

Paragerydus pyxus, de Nicév. J. A. S. B. vol. xliii. pt. 2, no. 1, p. 27, pl. v. fig. 2, ♂ (1894).

Borneo.

Described as rufous brown on the upperside.

Paragerydus moorei, sp. n. (Plate XXXI. figs. 5 ♂, 6 ♀.)

Miletus moorei, Staud. MS.

♂. Upperside dull brown, colour of *P. waterstradti*, but with the discal patch paler, more conspicuous, and about half as long as in that species. Underside pure white, with spots and striæ much as in that species and *P. horsfieldi*, but with the marginal row of spots placed further from the margin in both wings.

♀. Upperside uniform dull brown, with disc of fore wing slightly paler. Underside as in male.

Expanse, ♂ $1\frac{7}{10}$, ♀ $1\frac{1}{2}$ inch. Mus. Staud.

Kina Balu (*Waterstr.*).

This species should be distinguished from its allies by the pure white ground of its underside and by the short discal spot on the male above.

The male appears to agree exactly with Mr. de Nicéville's figure of *P. horsfieldi* (Butt. Ind. iii. pl. xxvi. fig. 156), which I believe is not the true *P. horsfieldi*, Moore, as the discal band is considerably shorter. *P. horsfieldi* occurs in Java, Sumatra, Borneo, and Malacca.

PARAGERYDUS TARAS.

Parageryдus taras, Doherty, J. A. S. B. vol. lviii. pt. 2, p. 437, t. xxiii. fig. 10 (1889).

S.E. Borneo (north of Banjarmasin) (*Wahnes*).

I have received a specimen which agrees well with Mr. Doherty's description and figure, excepting that it has a faint indication of a pale spot on the disc of the fore wing above.

PARAGERYDUS CAUDATUS. (Plate XXXI. figs. 7 ♂, 8 ♀.)

Allotinus caudatus, Grose Smith, Ann. Mag. Nat. Hist. ser. 5, vol. xii. p. 34 (1893).

♂. Upperside dull brown; the discal streak on the fore wing elongated and inconspicuous, much like *P. waterstradti*, which it closely resembles on the upperside in coloration and shape of both wings. Underside as female, but ground-colour tinged with brown and rather more heavily marked.

Expanse, ♂ $1\frac{7}{10}$, ♀ $1\frac{2}{5}$ inch.

Kina Balu (*Waterstr.*).

I have compared the female with Mr. Grose Smith's type and find them identical; it is remarkable for the shape of the hind wing, the third median nervule being produced so as to form a blunt tail, and in this respect differs from all others in the genus. In neuration it appears to be a typical *Parageryдus*.

PARAGERYDUS FABIUS.

Parageryдus fabius, Distant & Pryer, Ann. & Mag. Nat. Hist. ser. 5, vol. xix. p. 266, ♀ (1887).

Sandakan (*Pryer*).

This species is known to me only by the description; quite possibly it is the same as the preceding (*P. caudatus*), but Mr. Distant does not describe a projecting third median nervule in the hind wing, which is such a distinctive character in that species.

PARAGERYDUS APHOCHA.

Allotinus aphocha, Kheil, Rhop. Ins. Nias, p. 28, pl. v. fig. 30 (1884).

Labuan (*Wahnes*).

One specimen, a male, which is identical with several males from Nias Islands.

The outer margin of the hind wing is always strongly dentate. It appears to differ from *P. horsfieldi* by its much smaller size and by the pale ground-colour below, and by the comparatively small discal spot above.

ALLOTINUS, Feld.

ALLOTINUS SUBVIOLACEUS.

Allotinus subviolaceus, Feld. Reise Nov., Lep. ii. p. 286, t. 35. figs. 27, 28 (1865).

Kina Balu (*Waterstr.*).

The male agrees well with Felder's figure. The differences which separate *A. alkamah*, Distant, from this species, appear to be exceedingly slight; indeed males before me from Malacca and Kina Balu are identical, whilst one Bornean female has nearly the whole of the hind wing dusted with bluish scales. Mr. de Nicéville records *A. alkamah* from Borneo (Butt. Ind. iii. p. 30).

Allotinus audax, sp. n. (Plate XXXI. figs. 11 ♂, 12 ♀.)

Miletus audax, Staud. MS.

♂. Upperside allied to *A. subviolaceus*, Feld., but with the blue discal band replaced by a narrower creamy-white band; hind wing blackish brown, slightly paler on the disc. Underside much as in *A. subviolaceus*, but the ground paler and the spots and striæ standing out more distinctly.

♀. Upperside as *A. subviolaceus* ♀, but the blue areas replaced by clear creamy white; underside as male, but spots and striæ rather paler.

Kina Balu (*Waterstr.*). Mus. Staud. and Druce.

Allotinus nivalis.

Miletus nivalis, Druce, P. Z. S. 1873, p. 348.

Sandakan (*Pryer*); Kina Balu (*Waterstr.*); Labuan (*Low*); S.E Borneo (*Doherty*).

The *L.* (=*A.*) *substrigosa*, Moore, may be a distinct species, as the type and all other specimens I have examined from Borneo have the black spot on the costa of the hind wing below replaced by a pale brown one; this, however, is the only difference I can detect between these specimens and three in our collection from the Tenasserim Valley (*Doherty*), in all of which the black spot is very distinct.

Allotinus unicolor.

Allotinus unicolor, Feld. Reise Nov., Lep. ii. p. 286 (1865); Distant & Pryer, Ann. & Mag. Nat. Hist. ser. 5, vol. xix. p. 266 (1887).

Sandakan (*Pryer*).

A. unicolor is included here on the authority of Messrs. Distant and Pryer. I do not know the species.

Logania, Distant.

Logania regina.

Miletus regina, Druce, P. Z. S. 1873, p. 348, pl. xxxii. fig. 4.

Labuan (*Low*); Sandakan (*Pryer*).

This species, which together with *L. lahomius*, Kheil, is a true *Logania*, is closely allied to *L. sriwa*, Distant, from which it principally differs by the inner marginal area of the fore wing below being white; in *L. sriwa* it is blackish brown. The type, a male, is now in Messrs. Godman and Salvin's collection.

Logania obscura.

Logania obscura, Distant & Pryer, Ann. & Mag. Nat. Hist. ser. 5, vol. xix. p. 266 (1887).

Sandakan (*Pryer*).

It is, I fear, impossible to make out the species from the description given.

Logania staudingeri, sp. n. (Plate XXXI. figs. 13 ♂, 14 ♀.)

♂. Upperside: fore wing pale greyish blue, costal margin rather broadly, apex and outer margin broadly black; hind wing black. Underside: fore wing blackish grey, the costal margin and apex, as also a narrow outer-marginal line, rufous brown; a broad brown fascia crossing the cell just beyond its middle, and another much the same at the end of the cell: hind wing rufous brown, with two sinuous median bands crossing the wing from about the centre of the costal margin to the anal margin; these bands are rather darker brown than the ground-colour, and edged on both sides with black lines; the centre of the costal margin, as also the outer margin from its middle towards the anal angle, clouded with black.

♀. Upperside pale greyish white, apex broadly brown, narrowing towards angle: hind wing greyish; costal margin rather broadly, outer margin very narrowly fuscous. General appearance much like *L. sriwa*, Dist., ♂. Underside as male but paler.

Expanse, ♂ ♀, 1⅛ inch.

Kina Balu (*Waterstr.*). Mus. Staud.

The disc of the fore wing in the male is nearly as blue as in *A. subviolaceus*, Feld.

Cyaniriodes, de Nicév.

v. de Nicév. Butt. Ind. etc. iii. p. 33 (1890).

Cyaniriodes libna, Hew.

Hypolycæna libna, Hew. Ill. Diurn. Lep., *Lyc.* Supp. p. 15, pl. v. (Supp.) figs. 39, 40, ♀ (1869).

♂. Upperside dark shining emerald-green: fore wing—costal margin rather narrowly, outer margin broadly, black; a black quadrate spot at the end of the cell confluent with the black costal margin: hind wing—apex narrowly, outer margin and anal fold broadly, black; costal margin greyish; an oval shining patch below and adjoining the subcostal nervure just before the middle, on which lies a short tuft of black hairs, which appears to be attached to the membrane of the wing close to the subcostal nervure; there is also a small tuft of black hairs placed close to the base, which are directed upwards, and are partially covered by the fore wing. Underside as ♀. There are no tails.

Sandakan, Borneo (*Hew.*).

Mr. H. J. Elwes has kindly sent me for examination a male of

this interesting and rare species, which I have described above. I find it impossible to make out the neuration correctly without clearing the wing of scales; but the possession of the tufts of hair seems to show that it is closely allied to *Poritia*, next to which I have placed it.

The type in the Hewitson collection, which is in poor condition and has lost its abdomen, is the only female I have seen. On the underside the markings are somewhat like those of *Poritia*, but the wings are less thickly covered.

Poritia, Moore.

When Mr. Herbert Druce wrote his list of Bornean butterflies, one species only of this beautiful group was known from the country, but shortly after Hewitson described two (1874). I am able to include four new species, which, together with representatives of species described principally from other localities, brings the number up to about ten.

Poritia sumatræ.

Pseudodipsas sumatræ, Feld. Reise Nov., Lep. vol. ii. p. 259, pl. xxxvi. figs. 24–26 (1865); Druce, P. Z. S. 1873, p. 351.

Labuan (*Low*).

A single male in Messrs. Godman and Salvin's collection is my only authority for including this well-known species.

Poritia phormedon, sp. n. (Plate XXXI. figs. 16 ♂, 17 ♀.)

♂. Upperside brilliant emerald-green, closely allied to *P. hewitsoni*, Moore, from which it differs by the fore wing possessing a broad, arched, green streak along the upper wall of the cell, extending from the base nearly to the end, sharply defined at its extremity; the black spot in the submedian interspace is large and prominent. Underside greyer, with the bands broader and more regular, and with their edges less distinctly prominent.

♀. Upperside: fore wing entirely without the ochreous which is usually present in that sex of *P. hewitsoni*, and without the brown streak which is usual in the submedian interspace of that species; the blue streak in the cell as described in the male is very prominent, and is entirely absent in *P. hewitsoni*: hind wing with a small ochreous streak in the cell at its outer extremity. Underside as male, but paler.

Expanse, ♂ ♀, $1\frac{7}{10}$ inch.

Kina Balu (*Waterstr.*). Mus. Staudinger.

P. phormedon is the Bornean representative of *P. hewitsoni*, and presents sufficient differences to be considered distinct. It is also a much larger insect. Dr. Staudinger writes me that he has only received a pair.

Poritia pellonia.

Poritia pellonia, Distant & Pryer, Ann. & Mag. Nat. Hist. ser. 5, vol. xix. p. 265 (1887).

Sandakan.

I have not seen this species; on the underside it is said to be similar to *P. pleurata*, Hew., from Singapore.

PORITIA PHALUKE, sp. n. (Plate XXXI. fig. 15 ♂.)

♂. Upperside: fore wing rich ultramarine-blue, with a large oblong black patch about the middle of the costa, which is also black, extending downwards to the median nervure; apex and outer margin black, irregularly serrated on its inner edge: hind wing black, with a rather broad central ultramarine-blue streak extending from the base nearly to the outer margin, sharply bordered on its upper edge by the median nervure. Underside much like that of *P. phraatica*, Hew., but the ground-colour much whiter and the markings somewhat narrower, and the bands more broken and with their edges darker and more conspicuous.

♀. Upperside brown, with dark margins much as in *P. phraatica*. Underside as male, but paler.

Expanse $1\frac{2}{5}$ inch.

Kina Balu (*Waterstr.*). Mus. Staudinger.

The female appears to be identical with the type of Hewitson's *P. phraatica*; but the male is very different from the male of that species which I have before me from Malacca (*Eichorn*), and which has been described by Mr. Distant. By the single streak on the hind wing it seems to be allied to *P. pellonia*, Dist. & Pryer.

PORITIA PHILOTA.

Poritia philota, Hew. Trans. Ent. Soc. 1874, p. 346; Ill. Diurn. Lep., *Lyc.* p. 217, pl. 89. fig. 20 (1878).

Labuan (*Wahnes*); N.E. Borneo (*Mus. G. & S.*).

I have received specimens which are identical with Hewitson's type from Sumatra; we also possess a male from Java. Messrs. Godman and Salvin's collection also contains a pair from Borneo, and a single male from the Philippine Islands (*Pryer*)[1]. The female is dull brown, slightly ochreous on the disc of the fore wing, and towards the outer margin of the hind wing; on the underside it is much paler than the male.

PORITIA PLATENI.

Poritia plateni, Staud. Iris, ii. p. 104, pl. i. fig. 8 (1889).

Kina Balu (*Waterstr.*).

[1] Dr. Staudinger has sent another form which I believe is distinct and describe as below:—

PORITIA PHARE, sp. n. (Plate XXXIV. fig. 14 ♂.)

♂. Upperside allied to *P. philota*, but larger, and with the blue streak in the cell replaced by a small blue spot about its middle, close to the subcostal nervure. Underside: ground-colour pale grey, with the bands and spots much as in *P. philota* and standing out prominently.

Expanse $1\frac{2}{3}$ inch.

Hab. Mindanao, Davao (*Platen*). Type Mus. Staud.

This species should be at once distinguished from *P. philota* by the pale ground of the underside, thus th rowing up the markings prominently.

Through the kindness of Dr. Staudinger I have been able to examine two specimens from Borneo, and the type of the species which was obtained from the island of Palawan. I find that the irregular dark blotches vary slightly in intensity and shape; indeed, in neither one of the specimens are they alike in the corresponding wings. The species should be easily recognized, as it is quite unlike any other in the genus. It is a true *Poritia*, as defined by Mr. de Nicéville.

Poritia phama, sp. n. (Plate XXXI. fig. 18 ♂.)

♂. Fore wing, upperside brilliant greenish blue, apex and outer margin down to lower median nervule broadly black, then narrowly black; a quadrate black spot at the end of the cell adjoining the black costa and evenly bordered by the end of the cell, the third median nervule, and towards the apex by a short band of blue which is intersected by black nervules. Hind wing greenish blue, costal third and anal fold greyish; a marginal row of small black spots between the nervules, most distinct towards the anal angle. Underside much like *P. phormedon*, but with the markings of a more reddish hue.

Expanse $1\frac{3}{10}$ inch.

Kina Balu (*Waterstr.*).

I have a specimen before me belonging to Dr. Staudinger labelled "Vulcan Gede, West Java," which I take to be this species; it agrees exactly with Bornean specimens on the upperside, but on the underside the bands are straighter and somewhat more compressed together, thus leaving broader ground-spaces, and are rather more reddish, but these are peculiarities which I have noticed in *P. hewitsoni*, Moore.

Poritia phalena.

Poritia phalena, Hew. Trans. Ent. Soc. 1874, p. 344; Ill. Diurn. Lep., *Lyc.* p. 216, pl. lxxxix. figs. 14, 15 (1878).

♀. *Simiskina solyma*, de Nicév. J. A. S. B. vol. lxiii. pt. ii. no. 1, p. 29, pl. iv. fig. 10 (1894).

Labuan (*Waterstr.*). ♂ ♀.

The male received from Labuan agrees exactly with Hewitson's type in the British Museum, and the female with Mr. de Nicéville's description and figure of *S. solyma*, excepting that the discal spot is not quite so clearly white in any light. So far as I can tell the neuration agrees with that of *Poritia*, but the tuft of long black hairs attached to the base of the submedian nervure in the hind wing is wanting, and I notice that Mr. Doherty in describing a near ally, viz. *P. hartertii*, from Upper Assam, does not mention this patch. Why Mr. de Nicéville should place his insect (a female) in the genus *Simiskina* I do not know.

The sexes are remarkable for the disparity in size, the male before me measuring $1\frac{1}{5}$ inch, the female $1\frac{7}{10}$ inch.

The species has not been recorded since Hewitson obtained the type.

Poritia pheretia.

Poritia pheretia, Hew. Trans. Ent. Soc. 1874, p. 346 ; Ill. Diurn. Lep., *Lyc.* p. 217, pl. lxxxix. figs. 16, 17, 18 (1878).

Sandakan.

Mr. H. J. Elwes has sent me for examination a single female specimen which is referable to this species.

Poritia phalia.

Poritia phalia, Hew. Trans. Ent. Soc. 1874, p. 345 ; Ill. Diurn. Lep., *Lyc.* p. 216, pl. lxxxviii. figs. 10, 11 (1878).

Borneo (*Low*).

This species is known to me only by the type in the British Museum.

Poritia philura, sp. n. (Plate XXXII. fig. 1 ♂.)

♂. Upperside jet-black, with brilliant greenish-blue patches and spots arranged much as in *Simiskina pharyge*, Hew., but generally larger ; the central streak in the fore wing, which in *S. pharyge* is comparatively straight, is bent upwards at the base of the first median nervule and occupies the upper half of the cell : costal margin of hind wing from base nearly to apex broadly pale orange ; tuft of hairs near base black. Underside uniform yellowish buff : fore wing with a thin dark streak at the end of the cell, a central irregular line composed of minute white spots inwardly bordered with black, halfway between this and the margin a faint parallel line composed of dull reddish lunules, a reddish anteciliary line ; cilia black : hind wing as described above, but the first two spots of the central line which commences on the costal margin large and distinct, a narrow black line inwardly bordering the reddish anteciliary line, and within that towards the anal angle a greyish sinuous line ; cilia black at the tips of the nervules, greyish in between. Head, thorax, and abdomen black above, yellowish beneath ; legs black, spotted with yellow above, yellow below.

Expanse $1\frac{2}{5}$ inch.

Kina Balu (*Waterstr.*). Type Mus. Staud.

Dr. Staudinger has sent me this distinct species and writes that it is unique. So far as I can see it agrees with *Poritia* in neuration, but is without the tuft of long hairs at the base of the submedian nervure of the hind wing, which is present in typical *Poritia*, nor has it the tuft of hairs below the cell which is said to be a distinctive character of *Simiskina*. *P. philura* is distinguished from *S. pharyge* on the upperside by the yellow costal margin of the hind wing, and is very different below.

Simiskina, Distant.

Simiskina pharyge.

Poritia pharyge, Hew. Trans. Ent. Soc. 1874, p. 345 ; Ill. Diurn. Lep. *Lyc.*, p. 215, pl. lxxxviii. figs. 8, 9, ♂.

Simiskina pharyge, de Nicév. Journ. Bombay Nat. Hist. Soc. 1891, p. 361, pl. F. fig. 11, ♀.

Labuan (*Wahnes*).

Specimens from Labuan, as also one from Java in our collection, agree well with Hewitson's type from Borneo. I have described below a new genus and species of this group from the Philippine Islands.[1]

PITHECOPS, Horsf.

PITHECOPS HYLAX.

Papilio hylax, Fab. Syst. Ent. p. 526 (1775).

Kina Balu (*Waterstr.*); Labuan near Banjarmasin, S.E. Borneo.

Mr. Doherty has also taken this species in Borneo (*vide* Butt. Ind. iii. p. 50).

NEOPITHECOPS, Distant.

NEOPITHECOPS ZALMORA.

Pithecops zalmora, Butl. Cat. Fab. Lep. B. M. p. 161 (1869).

Cupido talmora, Druce, P. Z. S. 1873, p. 348.

Labuan (*Low*); S.E. Borneo (*Doherty*).

SPALGIS, Moore.

SPALGIS EPIUS.

Lucia epius, Westw. Gen. Diurn. Lep. vol. ii. p. 502, pl. lxxvi. fig. 5 (1852)[2].

[1] PORISKINA, gen. nov.

Allied to *Poritia*, but with two subcostal nervules only to the fore wing; the first, which is emitted about the middle of the cell, is very short and runs into the costal nervure, the second is emitted about halfway between the first and the end of the cell. Two distinct tufts of hair in the cell of the hind wing; the upper one, which is composed of much the longest hairs, is placed close to the subcostal nervure, whilst the lower, which is smaller but very distinct, lies close to the median nervure a short distance from the base.

PORISKINA PHAKOS, sp. n. (Plate XXXIV. fig. 15 ♂.)

♂. Upperside pale cærulean blue, non-iridescent; fore wing—costal narrowly, apex and outer margin rather broadly dull brown; hind wing—costal and anal margins pale grey, outer margin rather narrowly dull brown: upper tuft of hairs white, lower tuft brown. Underside greyish white: fore wing glistening along inner margin up to lower median nervule; a pale orange spot in the cell at base of first median nervule, a narrow streak at the end of the cell and beyond, at about the middle a broken irregular band composed of irregular pale orange spots with narrow brown edges, and beyond this two exceedingly sinuous brown lines: hind wing as fore wing, but with an additional band of pale yellow spots placed about halfway between the base and the median band. Head, thorax, and abdomen bluish above, white beneath. Legs white, spotted with black.

Expanse 1⅜ inch.

Hab. Mindanao, Davao (*Platen*). Mus. Staud.

Dr. Staudinger has sent me this very distinct insect, which is not closely allied to any with which I am acquainted. It should be easily distinguished from all others by the absence of the third subcostal nervule, and by the non-iridescent blue.

[2] I have carefully examined the type of *S. dilama*, Moore, which is in Messrs. Godman and Salvin's collection, and find that it differs only from Sikkim specimens in the ground-colour being slightly paler. It is in very poor condition, and I quite fail to see how Mr. Moore can have considered it in any way distinct.

Kina Balu (*Waterstr.*).

Dr. Staudinger has sent me a male which differs from the typical form only by the disc of the fore wing below the white spot being slightly greyish.

SPALGIS NUBILUS.

Spalgis nubilus, Moore, P. Z. S. 1883, p. 522; Distant & Pryer, Ann. & Mag. Nat. Hist. ser. 5, vol. xix. p. 266 (1887).

Sandakan (*Pryer*); Labuan (*Wahnes*).

TARAKA, de Nicéville.

TARAKA HAMADA.

Miletus hamada, Druce, Cist. Ent. vol. i. p. 361 (1875).

Kina Balu (*Waterstr.*).

The type of this species is now in Messrs. Godman and Salvin's collection.

MEGISBA, Moore.

MEGISBA MALAYA.

Lycæna malaya, Horsf. Cat. Lep. E. I. C. p. 70 (1828).

Sandakan (*Pryer*).

M. malaya is also recorded from Borneo by Mr. de Nicéville, who states that it is the tailed form which occurs there (Butt. Ind. iii. pp. 61, 62).

CYANIRIS, Dalman.

I have no less than eight species of this genus to deal with, and after carefully examining all the described species, I am only able to recognize one as identical with one of these forms, viz. *C. lambi*, Distant, and am compelled with some reluctance to propose names for the remainder, notwithstanding Dr. Holland's remarks about them in the Proc. Boston Soc. Nat. Hist. 1890, p. 70.

CYANIRIS DILECTISSIMA, sp. n. (Plate XXXII. figs. 2 ♂, 3 ♀.)

Lycæna dilectissima, Staud. MS.

♂. Upperside allied to *C. albocæruleus*, Moore, but darker and greyer blue; the fore wing with the outer margin and apex narrowly black (about as in *C. argiolus*, Linn.), and with only a few whitish scales on the costa and on the disc: hind wing pure white, dusted with blue (thickly) at the base, along the outer margin, inside the black anteciliary line, and along the nervules; cilia pure white. Underside with spots and markings as in *C. albocæruleus*, but larger, blacker and more distinct, and with distinct black linear marks closing the cells of both wings: fore wing with a marginal row of black spots; hind wing with a similar row larger and blacker.

♀. Upperside differs from that sex of *C. albocæruleus* by the black outer marginal border of fore wing being broader and less clearly defined, and by the costal margin of hind wing being broadly (to the subcostal nervure) greyish black from base to apex.

Underside as male. The black marginal spots of the hind wing are seen through to the upper surface in both sexes, but are more noticeable in the female. The bases of both wings on upperside in female are slightly dusted with bluish scales.

Expanse, ♂ $1\frac{3}{10}$, ♀ $1\frac{3}{10}$–$1\frac{1}{7}$ inch.

Kina Balu (*Everett* and *Waterstr.*). Mus. Staud. and Druce.

C. dilectissima should be distinguished by its narrow black apex, by the absence of the white disc on the fore wing on its upperside, and by the distinct rows of black spots on the margins and the generally larger markings below. It is also allied to the recently described *C. ceyx*, de Nicéville, from Java[1].

Cyaniris puspa.

Polyommatus puspa, Horsf. Cat. Lep. E. I. C. p. 67 (1828).

Cupido cagaya, Druce, P. Z. S. 1873, p. 348.

Cyaniris lambi, Distant & Pryer, Ann. & Mag. Nat. Hist. ser. 5, vol. xix. p. 266 (1887).

Labuan (*Low*); Sandakan (*Pryer*).

I have seen one specimen only of this species from Borneo, a male, which was identified by Mr. Herbert Druce as *C. cagaya*, Feld., and is now in Messrs. Godman and Salvin's collection. This specimen is identical with one from Malacca, also in these gentlemen's possession, marked "*C. lambi*" by Mr. Distant. I do not know how *C. cagaya* can be distinguished from *C. puspa*. The broad-bordered and the narrow-bordered forms occur together in the Philippine Islands, both with and without white discs. What I take to be the typical *C. cagaya* is the broad-bordered form of the 'Novara' Voyage, and which now stands in the Felder collection marked "*lalage*," which appears to have been affixed to it in error, as I could find no specimen marked "*cagaya*."

Cyaniris placidula, sp. n. (Plate XXXII. figs. 6 ♂, 7 ♀.)

♂. Closely allied to *C. placida*, de Nicév. Upperside darker blue, with the outer margins more broadly black and less sharply defined inwardly; costal margin of hind wing much more broadly black. Underside differs from *C. placida* by the discal band of spots in the fore wing being more in line and, towards the outer angle, reaching close to the submarginal line. The submarginal lines in both wings are composed of less distinctly crescent-shaped striæ than in *C. placida*.

♀. Upperside broadly black-bordered, bluish on the discs, both wings with a black mark closing the cell; fore wing with a whitish blotch beyond the end of the cell; hind wing with a marginal row of lunules enclosing black marginal spots. Underside as male.

Expanse, ♂ $1\frac{1}{2}$–$1\frac{3}{10}$, ♀ $1\frac{1}{5}$ inch.

Kina Balu (*Waterstr.*). Type Mus. Staud. and Druce.

Apparently plentiful where it occurs. There seems to be practically no variation, judging from the specimens I have examined.

[1] *C. ceyx*, de Nicév. Journ. Bomb. Nat. Hist. Soc. vol. vii. p. 329, figs. 6, 7 (1892).

Cyaniris lugra, sp. n. (Plate XXXII. fig. 5 ♂.)

♂. Allied to *C. placida*, de Nicév., much smaller. Upperside uniform dull greyish silvery blue, margins more narrowly black, cilia greyish. Underside pale brownish grey, with the spots and markings arranged as in *C. placida*, but with the exception of two on the costa and the marginal row, also on the hind wing, which are blackish, of a dull brownish grey, but slightly darker than the ground-colour.

Expanse $1\frac{1}{10}$ inch.

Kina Balu (*Waterstr.*). Mus. Staud. and Druce.

This is a small, dull-coloured butterfly, which appears to be distinct from any described. I have not seen the female. Below will be found described another species which I believe to be new[1].

Cyaniris selma, sp. n. (Plate XXXII. fig. 10 ♂.)

♂. Allied to *C. cælestina*, Kollar. Upperside pale shining silvery blue, brighter and more shining than in that species; black apical border slightly wider. Underside: spots arranged as in *C. cælestina*, with the addition of faint marginal rows of spots which are most conspicuous in the hind wing. The two black spots close to the costal margin on the hind wing, which in *C. cælestina* are usually not more noticeable than the other spots on the wing, are in this species larger and more conspicuous than any others. The marginal row of spots on the hind wing shows through to the upper surface. Cilia shorter.

Expanse $1\frac{1}{10}$ inch.

Kina Balu (*Waterstr.*). Type Mus. Staud.

C. selma should be easily distinguished from *C. cælestina* by its brighter blue upperside. I have not seen the female.

Cyaniris stropiis, sp. n. (Plate XXXII. fig. 4 ♂.)

♂. Upperside deep lavender-blue, colour of *C. placida*, which it closely resembles, having, however, narrower and more even black margins. The underside exactly as in *C. dilectissima*, mihi, but the spots and markings not quite so deeply black.

Expanse $1\frac{3}{10}$ inch.

[1] Cyaniris phuste, sp. n. (Plate XXXIV. fig. 17 ♂.)

Upperside dull violaceous blue, rather greyer than *C. placida*, which it resembles on the upperside, with rather broader black borders. Underside greyish white, with a linear dark streak closing the cell of each wing, a very faint, scarcely perceptible zigzag line crossing the wings beyond the middle, then a darker submarginal line composed of crescent-shaped marks enclosing a marginal row of dark spots common to both wings and darkest towards anal angle of hind wing; a very fine anteciliary dark line to both wings. Cilia grey, with dark spots at the termination of the nervules.

Expanse $1\frac{1}{4}$ inch.

Hab. Dili (*W. Doherty*). Type Mus. Druce.

This is not the *C. duponchellii*, Godt., which we have also from Dili, obtained by Mr. Doherty, and which is close to *C. puspa* on the upperside, and has the lower spot of the discal series on the fore wing below enlarged into a considerable blotch.

Kina Balu (*Waterstr.*). Type Mus. Staud.

Can this be a seasonal form of *C. dilectissima*? On the under-side they are almost identical, but on the upperside the hind wings are strikingly different.

Cyaniris plauta, sp. n. (Plate XXXII. figs. 8 ♂, 9 ♀.)

Lycæna plauta, Staud. MS.

♂. Upperside deep lavender-blue, colour of *C. placida*, with black costa, apex, and outer margin much as in *Lycænopsis haraldus*, Fab. (to which it bears a general resemblance, without possessing the beautiful opalescent shading of that species), but the blue area more extensive: hind wing deepl avender-blue, outer margin very narrowly black, with a marginal row of elongate black spots; costal margin broadly black to near its apex, where it becomes white, a large white patch below this occupying nearly the whole of the subcostal interspace except the black outer margin: anal fold whitish. Underside: ground-colour white tinged with pale yellow as in *L. haraldus*, with black spots arranged much as in *C. placida*, large and distinct; the black spot on the middle of the costa of hind wing is unusually large and conspicuous.

♀. Upperside resembling *C. albidisca*, Moore, ♀, but without the black streak closing the cell of the fore wing, and with the whole of the white area of the fore wing as well as the abdominal half of the hind wing shot with beautiful opalescent blue; the black marginal spots on hind wing become more separated and distinct towards the anal angle. Underside as male.

Expanse, ♂ $1\frac{3}{5}$, ♀ $1\frac{3}{5}$–$1\frac{3}{10}$ inch.

Kina Balu (*Waterstr.* and *Everett*); Labuan (*Low*). Mus. Staud. and Druce.

Some females from Kina Balu are not so strongly marked on the underside as others, whilst a female from Labuan in Messrs. Godman and Salvin's collection has the outer margin of hind wing above broadly black-bordered. It seems a distinct species, and the yellowish tinge of the underside may perhaps serve to link it with the species which I have placed in the next genus.

Cyaniris ripte, sp. n. (Plate XXXII. fig. 11 ♂.)

♂. Upperside bright shining violaceous blue, with a pinkish tinge and black margins about equal to those of *C. placida*. Under-side pale brown, slightly paler only than the ground-colour of *Jamides bochas*, Cr., ♀, with sordid-white-edged spots and mark-ings, which are rather darker brown than the ground-colour, arranged as in *C. puspa*, with the addition of a double spot in the centre of the cell of the fore wing. The black spot just beyond the middle of the costal margin on the hind wing is large and prominent.

Expanse 1–$1\frac{1}{5}$ inch.

Labuan (*Low*). Type Mus. G. & S.

C. ripte differs from all others in the shade of blue on the upperside, and is, I believe, the only *Cyaniris* known which has a

spot in the cell of the fore wing below; this spot, I find, is not always double as described above, sometimes single, but always distinctly present.

Lycænopsis, Feld.

This genus is very, perhaps too close to *Cyaniris*, under which name it has been sunk by Mr. Distant. On bleaching the wings of a male the only differences in venation which I can discover are in the hind wing, in which the first median nervule and the subcostal nervule are both longer than in *C. argiolus*, Linn., being emitted higher up the wing. This character, however, is probably not of much importance.

Lycænopsis haraldus.

Papilio haraldus, Fab. Mant. Ins. vol. ii. p. 82 (1787).
Cupido cornuta, Druce, P. Z. S. 1873, p. 349, pl. xxxii. fig. 5, ♀.
Labuan (*Low* and *Wahnes*).

Apparently a scarce insect in Borneo, as I have seen three female specimens only—two, including the type of *C. cornuta*, which does not differ in any way from females from Malacca and Java, in Messrs. Godman and Salvin's collection, and one sent by Dr. Staudinger.

Zizera, Moore.

Zizera is a genus which appears to be very poorly represented in Borneo, and I am able to include only one species here.

Zizera otis.

Papilio otis, Fab. Mant. Ins. vol. ii. p. 73 (1787).
Zizera lysizone, Distant & Pryer, Ann. & Mag. Nat. Hist. ser. 5, vol. xix. p. 267 (1887).
Labuan (*Wahnes* and *Waterstr.*); Sandakan (*Pryer*).

Bornean specimens show the same amount of variation on both surfaces as obtains in the species from other localities.

Lycænesthes, Moore.

Lycænesthes emolus.

Polyommatus emolus, Godt. Enc. Méth. vol. xix. p. 656 (1823).
Pseudodipsas bengalensis, Druce, P. Z. S. 1873, p. 351.
Labuan (*Low* and *Wahnes*); S.E. Borneo (*Wahnes*).

Lycænesthes lycænina.

Lycænesthes lycænina, Feld. Verh. zool.-bot. Gesellsch. Wien, vol. xviii. p. 281 (1868); Distant & Pryer, Ann. & Mag. Nat. Hist. ser. 5, vol. xix. p. 267 (1887).
S.E. Borneo (*Wahnes*); Sandakan (*Pryer*).

We also possess a specimen, labelled "Borneo," which was formerly in the Rev. Mr. Murray's collection, and Mr. de Nicéville records it Butt. Ind. etc. p. 130 (1890).

Niphanda, Moore.

Niphanda reter, sp. n. (Plate XXXII. fig. 12 ♂.)

♂. Upperside shining dark violet as in *N. cymbia*, de Nicév., which it closely resembles. Underside: ground pure white with dark brown spots on the fore wing as in that species, but larger and more distinct, especially that one which lies beyond the basal streak, which is nearly twice as large as in *N. cymbia*. Hind wing with the spots arranged as in *N. cymbia*, but much larger; and without the brown mottling of that species.

Expanse $1\frac{3}{10}$ inch.

Kina Balu (*Waterstr.*). Mus. Staud. and Druce.

At first sight the underside of this insect presents a very different appearance from *N. cymbia*, but on closer examination the spots appear to be similarly placed. The absence of all mottlings from the hind wing and the much larger spots, together with the pure white ground, should distinguish it.

Luthrodes, gen. nov.

Allied to *Talicada*, Moore, from which it differs by the costal nervure of the fore wing being bent towards the first subcostal nervule, but entirely free for its whole length—not anastomosed as in that genus—and reaching the margin considerably before the apex of the cell.

Type *Polyommatus cleotas*, Guér.

I find on bleaching the wings that the species referred by myself (P. Z. S. 1891, p. 358, & 1892, p. 436) and others to *Talicada* are not strictly congeneric and present the differences in neuration described above. All the species of *Luthrodes* are tailless excepting *L. mindora*, Feld., which is tailed like *J. nyseus*, Guér.

Luthrodes mindora.

Lycæna mindora, Feld. Reise Nov., Lep. ii. p. 277, t. 34. figs. 9, 10 (1865).

Cupido aruana, Druce, P. Z. S. 1873, p. 349 (nec Feld.).

Talicada mindora, Distant & Pryer, Ann. Mag. Nat. Hist. ser. 5, vol. xix. p. 267 (1887).

Labuan (*Low*); Sandakan (*Pryer*).

The two specimens which I have seen from Borneo are now in Messrs. Godman and Salvin's collection. They were incorrectly referred to *L. arruana*, Feld., which has larger spots below and is without tails. They are identical with specimens from Mindoro before me. Of course in the general arrangement of the nervules *Luthrodes* scarcely differs from *Lycæna*, *Cyaniris*, and others, but the peculiarity of coloration seems to suggest a distinctive feature, being intermediate between those genera and *Talicada*.

EVERES, Hübn.

EVERES ARGIADES.

Papilio argiades, Pallas, Reise, vol. i. App. p. 472 (1771).
Polyommatus lacturnus, Godt. Enc. Méth. ix. p. 66 *a* (1823).
Cupido lacturnus, Druce, P. Z. S. 1873, p. 348.

Kina Balu (*Waterstr.*); Labuan (*Low*).

I have no hesitation in placing *P. lacturnus*, Godt., as a synonym of *E. argiades* after examining specimens from Timor. The species is also a very common one in New Guinea, where the females are sometimes pale grey with darker borders, and where it varies much in size, one male in Messrs. Godman and Salvin's collection measuring only slightly more than $\frac{1}{2}$ inch.

NACADUBA, Moore.

NACADUBA PAVANA.

Lycæna pavana, Horsf. Cat. Lep. E. I. C. p. 77 (1828).

Kina Balu (*Waterstr.*); Sandakan (*Pryer*); Labuan (*Low*).

Specimens from Kina Balu are darker on both surfaces than those from the other localities.

NACADUBA LUGINE, sp. n. (Plate XXXII. fig. 15 ♂.)

Cupido pactolus, Druce, P. Z. S. 1873, p. 348 (nec Feld.).

♂. Allied to *N. macrophthalma*, Feld.; rather larger. Upperside brighter and more violaceous blue, and with scarcely any silvery gloss. Underside pale rufous brown, with the fasciæ narrower, paler, and in the fore wing much more irregularly broken, so that there is no distinct Y. The black spot between the lower median nervules is larger and more broadly edged with rich dark orange.

Expanse $1\frac{3}{5}$ inch.

Labuan (*Low*). Type Mus. G. & S.

On comparing this species with the type of *L. pactolus*, Feld., to which it was referred by Mr. Herbert Druce in his paper on Bornean Butterflies, I find that it is quite distinct, and, as I can find nothing else like it, am compelled to describe it as new.

Messrs. Godman and Salvin's collection contains another small female specimen of a species belonging to this group, which on the upperside resembles that sex of *N. atrata*, Horsf., and on the underside is much like *N. pavana*, Horsf., but until the male is discovered I do not care to propose a name for it. It expands $1\frac{1}{10}$ inch and is from Sandakan.

NACADUBA ANGUSTA.

Cupido angusta, Druce, P. Z. S. 1873, p. 349, pl. xxxii. fig. 9.

Labuan (*Low*).

Messrs. Godman and Salvin's collection contains the type of this species. The figure given is quite useless and misleading and hardly bears any resemblance to the insect. In it the wings appear to be dark grey with yellow borders and black markings

and spots, whereas the ground-colour is very pale yellowish grey with pale brown fasciæ and a double row of black marginal spots to each wing; the two spots nearest to the anal angle sprinkled with blue scales. The upperside is dull violaceous silvery blue. Possibly *N. kerriana*, Distant, is conspecific with *N. angusta*, but unfortunately I have not a specimen for examination. The underside of the figure given in Rhop. Malay. appears to agree well with that of *N. angusta*, but the upperside has a broader black outer margin.

N. azureus, Röber, as figured by Herr Semper (Reise Philip. Insel. p. 177, pl. xxxiii. figs. 1, 2), and which we possess from S. Celebes (*Doherty*), is a closely allied species. Herr Röber's figure and this one, however, do not agree very well.

Nacaduba atratus.

Lycæna atratus, Horsf. Cat. Lep. E. I. C. p. 78 (1828).

Cupido akaba, Druce, P. Z. S. 1873, p. 350.

Kina Balu (*Waterstr.*); Labuan (*Low*); S.E. Borneo, near Banjarmasin (*Wahnes*).

Kina Balu specimens are slightly darker on the upperside than those from Labuan and S.E. Borneo. I have examined the type of *C. akaba*, and can find no character to distinguish it.

Nacaduba beroë.

Lycæna beroë, Feld. Reise Nov., Lep. ii. p. 275, pl. xxxiv. fig. 36 (1865).

Nacaduba beroë, Distant & Pryer, Ann. Mag. Nat. Hist. ser. 5, vol. xix. p. 267 (1887).

Sandakan (*Pryer*).

I include *N. beroë* here on the authority of Messrs. Distant and Pryer. Typically, I think it can be distinguished from *N. atratus* by the paler ground-colour of the underside and by the fascia being much wider.

Nacaduba bhutea.

Nacaduba bhutea, de Nicév. J. A. S. B. vol. lii. pt. 2, p. 72, pl. i. fig. 13 (1883).

Kina Balu (*Waterstr.* and *Everett*); Labuan (*Low*).

The ground-colour of the Bornean examples I have examined is ochreous on the underside.

Nacaduba ardates.

Lycæna ardates, Moore, P. Z. S. 1874, p. 574, pl. lxvii. fig. 1.

Sandakan (*Pryer*); Labuan (*Low*).

The tailed form only.

Nacaduba aluta. (Plate XXXII. figs. 13 ♂, 14 ♀.)

Cupido aluta, Druce, P. Z. S. 1873, p. 349, pl. xxxii. fig. 8.

Sandakan (*Pryer*); Labuan (*Low & Wahnes*).

The figure given in the P. Z. S. is a very bad one and bears but slight resemblance to the insect. It is, in my opinion, although

allied to *N. ardates*, quite distinct. On the upperside it is much like *N. atratus* (dry-season form) in colour and general appearance, whilst *N. ardates* is a totally different shade, being dark violaceous brown. On the underside, although the markings are placed as in *N. ardates*, they are always pure white. The female is dull blackish brown on the upperside, with the disc of the fore wing light shining blue and with an outer-marginal row of black spots on the hind wing most conspicuous; the underside is paler in colour than the male, and the double marginal row of black lunules is more distinct. Mr. Distant has probably figured and described specimens of *N. ardates* as *N. aluta* in his 'Rhopalocera Malayana.' I hope the above remarks will enable the species to be distinguished when met with. It is not an uncommon insect in Borneo, but I have seen no specimens from any other locality. Messrs. Godman and Salvin possess the type and other specimens, whilst Dr. Staudinger has also sent it. The type measures fully 1 inch, whilst the figure barely reaches $\frac{4}{5}$ inch.

Messrs. Distant and Pryer record *N. aluta* from Sandakan (Ann. & Mag. Nat. Hist. ser. 5, vol. xix. p. 267), but as Mr. Distant has not recognized the species, probably not having seen the type, without which it was of course quite impossible to do so, they are probably referring to *N. ardates*[1].

NACADUBA ANCYRA.

Lycæna ancyra, Feld. Reise Nov. Lep. p. 276, t. 34. fig. 5 (1865).

Cupido almora, Druce, P. Z. S. 1873, p. 349, pl. xxii. fig. 7.

Nacaduba pseustis, Doherty, J. A. S. B. vol. lx. pt. ii. p. 182 (1891).

Kina Balu (*Waterstr. & Everett*); Labuan (*Low*); S.E. Borneo (*Doherty*).

The figure given of *C. almora* is misleading. I have examined the type of *L. ancyra* in the Felder collection and find that *C. almora*, Druce, the type of which (♂) is in Messrs. Godman and Salvin's collection, is identical with it. Mr. Doherty has also described it as *N. pseustis*[2].

UNA, de Nicév.

Butt. Ind. etc. iii. p. 51 (1890).

UNA USTA.

Zizera? usta, Distant, Ann. & Mag. Nat. Hist. ser. 5, vol. xvii. p. 531 (1886); Rhop. Malay. p. 454, pl. xliv. fig. 5 (1886).

[1] Dr. Staudinger has kindly sent me for examination the type of his *Lycæna ardeola* from Palawan (Iris, ii. p. 97, 1889), which must be sunk as a synonym of *N. dana*, de Nicév., with which it is identical.

[2] *N. amaura*, H. H. Druce (P. Z. S. 1891, p. 361, pl. xxxi. fig. 10), from the Solomon Is., should be sunk as a synonym of *N. ancyra*, as also probably should *N. gaura*, Doberty, from Sumba (J. A. S. B. vol. lx. p. 181. 1891), which is stated (p. 182) to be something like *Lycæna palmyra*, Feld. I cannot, however, see any resemblance. An error has been made in numbering the figures on plate ii. in this part of the J. A. S. B.; fig. 9 (pl. ii.) should read fig. 11, and *vice versa*, as is evident from the descriptions on pp. 182–184. *N. maniana*, H. H. Druce (id. pl. xxxi. fig. 9), is also very close and should perhaps be considered a slight local race.

Kina Balu (*Waterstr.*).

Dr. Staudinger has sent me a fine specimen (♂) of what I take to be this interesting species; it differs slightly, however, from Mr. Distant's description of the underside as follows:—The fore wing has only one small fuscous spot in the middle of the cell; on the hind wing the fuscous spot beneath the outermost black spot on the costal margin and the fuscous spot in the cell are both wanting.

The genera *Una*, de Nicév., and *Prosotas*[1], mihi, agree very closely in venation, but have a very different general appearance, whilst the palpi of *Prosotas* are shorter and the antennæ less spatulate.

Jamides, Hübn.

Jamides bochus.

Papilio bochus, Cr. Pap. Exot. vol. iv. p. 210, pl. cccxci. figs. C, D (1782).

Kina Balu (*Waterstr.*); Labuan (*Low*).

All the Bornean males I have examined have the blue area of the fore wing much contracted.

Lampides, Hübn.

After working carefully through the described species of this genus, I find four Bornean species which I am unable to match with any of them, and am, though with considerable reluctance, obliged to describe them here. Although Mr. de Nicéville has paid much attention to the genus, and, having seen some of Felder's types, has, in a paper (Journ. Bombay Nat. Hist. Soc. pp. 364–368, 1891) published after his 'Butterflies of India, etc,' considerably altered some statements made in that work, much yet remains to be done to put the genus into a satisfactory condition; and until some one has the opportunity to carefully compare the types of the numerous species described by Herr Röber in 'Iris' i., and those of Felder and others, I fear it will still be so. After carefully studying Herr Röber's figures I am of opinion that they are by far the best yet published of this difficult group and not, as has been stated, difficult to make out.

Group I.[2]

Lampides elpis.

Polyommatus elpis, Godt. Enc. Méth. vol. xix. p. 654 (1823).

Lampides elpis, Distant & Pryer, Ann. & Mag. Nat. Hist. ser. 5, vol. xix. p. 267 (1887).

Cupido alecto, Druce, P. Z. S. 1873, p. 348.

Kudat; Sandakan and Elopura (*Pryer*); Kina Balu (*Waterstr.*); Labuan (*Low*); Lawas (*Everett*).

[1] *Prosotas*, mihi, P. Z. S. 1891, p. 366. Type *P. caliginosa*, mihi, from the Solomon Is.

[2] I have arranged the species here according to the groups given by M. de Nicéville in J. B. Nat. Hist. Soc. pp. 365, 366 (1891).

I am unable to say how the true *alecto*, Feld., differs from this species, not having seen the type, but the specimens now before me from Labuan, referred to that species by Mr. Herbert Druce, are undoubtedly *L. elpis*.

Mr. de Nicéville (Butl. Ind. etc. vol. iii. p. 165) appears to have wrongly identified *L. pseudelpis*, Butler, as on examination of the type I find that the transverse striæ are arranged as in true *L. elpis*, but that the lower portion of No. 1 is slightly out of line and nearer the base; but there are no other differences, and I quite agree with Mr. Distant that it is a form of *L. elpis*. On the upperside the type of *L. pseudelpis* has a faint black linear border only.

Lampides limes, sp. n. (Plate XXXII. fig. 16 ♂.)

♂. Upperside rich shining pale blue, much like *L. suidas*, Feld., but with the white bands of the underside showing more distinctly through than in that species; outer margins very narrowly black as in *L. suidas*. Underside: ground-colour rather dark grey, with white bands arranged much as in *L. elpis*—fore wing, the 1st and 2nd with white spots over them close to the costal margin; the 3rd and 4th much broken, both with their upper segments out of line and placed about halfway between the 2nd and 3rd and 3rd and 4th bands respectively; the 4th with two white spots above it close to the costal margin, one each side. Marginal and submarginal bands as in *L. elpis*. Hind wing with white bands arranged as in *L. elpis*, but more broken into segments.

Expanse $1\frac{7}{10}$ inch. Type Mus. Staud.

Kina Balu (*Waterstr.*).

L. limes is a much richer colour on the upperside than *L. elpis*, and is, I believe, the only species of this group in which the 1st and 2nd bands of the fore wing are continued to the costal margin by separated white spots.

Lampides virgulatus, sp. n. (Plate XXXII. fig. 17 ♂.)

♂. Upperside much like *L. philatus*, Snell., having the dull appearance of that species, but bluer. Underside rather darker grey than in *L. limes*, with distinct, narrow, and comparatively straight white bands: the 1st and 2nd are parallel, and have two small spots between them close to the costal margin; the 3rd is very short, and extends from the costal margin to the upper discoidal; the 4th extends to the 2nd median nervule, and has a small spot each side of it close to the costa; the 4th is short and extends from the upper discoidal to the 3rd median nervule. The remaining bands are placed as in *L. elpis*. Hind wing as in *L. elpis*, but the white bands are all straighter.

Expanse $1\frac{3}{10}$ inch.

S.E. Borneo, near Banjarmasin (*Wahnes*). Type Mus. Staud.

Although this species is much like *L. philatus* on the upperside, it is totally different on the underside. It appears to be distinct, and I hope can be recognized from the description given above.

LAMPIDES CÆRULEA. (Plate XXXII. fig. 19 ♀.)

Cupido cærulea, Druce, P. Z. S. 1873, p. 349, pl. xxxii. fig. 6.

Lampides cærulea, H. H. Druce, Ent. Mo. Mag. ser. 2, vol. v. p. 9 (1894).

Lampides bochides, de Nicév. J. B. Nat. Hist. Soc. 1891, p. 367, pl. F. fig. 15.

Kina Balu (*Waterstr.*); Elopura (*Pryer*); Labuan (*Low*); S.E. Borneo, near Banjarmasin (*Wahnes*).

Two specimens before me, which I take to be females of this species, are paler shining blue on the upperside and the outer margins of both wings are evenly black bordered; the apex of the fore wing widest. On the underside the ground-colour is paler than the male, and the bands, which are arranged exactly as in the male, are wider and pure white.

LAMPIDES ABDUL.

Lampides abdul, Distant, Rhop. Malay. p. 456, pl. xliv. fig. 22 (1886); Distant & Pryer, Ann. & Mag. Nat. Hist. ser. 5, vol. xix. p. 267 (1887).

Sandakan (*Pryer*).

Mr. de Nicéville states that this species belongs to this group (Butt. Ind. etc. iii. p. 166, 1890). I have not seen a specimen.

Group II.

LAMPIDES OSIAS.

Plebeius osias, Röber, Iris, i. p. 56, pl. v. fig. 17 (1886).

Lycæna amphyssina, Staud. Lep. Palawan, p. 100, t. i. fig. 4, ♀ (1889).

Kudat; Labuan (*Low*); Sibutu (*Everett*).

Dr. Staudinger has kindly sent me the types of his *L. amphyssina*, which do not differ in the slightest from *L. osias*, which, as has been already pointed out by Herr Semper[1], must be sunk as a synonym[2].

[1] Schmett. Phil. Insel. p. 179 (1889).

[2] We possess a good series of a species belonging to this group, which I can find nowhere described, and propose to call it *L. emetallicus*, sp. n.

Allied to *L. amphissa*, Feld., ♂ ♀. Upperside as that species. Underside: ground-colour darker, the lines narrower and more irregular; the ground-colour between the two submarginal zigzag lines of the fore wing distinctly darker than the rest of the wing. Hind wing: a very small orange spot close to the margin, just above the submedian nervure; the black spot between the 1st and 2nd median nervules only, crowned with orange and without any metallic-blue scales whatever. Expanse as *L. amphissa*. Batchian (*Doherty*). Type Mus. Druce, also in Mus. S. & G.

Allied to *L. amphissa*, Feld., and *L. amphissina*, Grose Smith[a], and also to *L. lucianus*, Röber, from which latter it differs in the arrangement of the white lines in the fore wing; but differing, so far as I know, from all others in the absence of all metallic scales near the anal angle of the hind wing below.

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[a] *L. amphissina*, Grose Smith, Novitates Zoologicæ, vol. i. p. 577, 1894. Is not this name too near to "*amphyssina*" to stand?

Group III.

Lampides celeno.

Papilio celeno, Cr. Pap. Exot. vol. i. pl. xxxi. figs. C, D (1775).
Cupido celeno, Druce, P. Z. S. 1873, p. 348.
Lampides ælianus, Distant & Pryer, Ann. & Mag. Nat. Hist. ser. 5, vol. xix. p. 267 (1887), et auctores.

Labuan (*Low*); Sarawak (*Everett*).

Mr. de Nicéville appears to consider *L. celeno*, Cr., distinct from *L. ælianus* (Journ. B. N. H. Soc. 1891, p. 366). The types of Mr. Herbert Druce's *L. agnata* [1] are before me, and are quite indistinguishable from the common form of *celeno*. The forms *alexis*, Stoll, and *conferenda*, Butl., seem to be quite unknown in Borneo [2]. I think that both Messrs. Distant and de Nicéville are wrong in placing *P.* (=*L.*) *malaccanus*, Röber, as a synonym of *L. ælianus*, as the arrangement of the white bands on the hind wing is very different, the 4th band (from the base), which in *ælianus* extends upwards to the 2nd median nervule, is in Herr Röber's figure entirely absent.

Lampides optimus.

Plebeius optimus, Röber, Iris, i. p. 56, pl. iv. fig. 16 (1886).

Kina Balu (*Waterstr.*); Elopura (*Pryer*); Lawas (*Everett*); Labuan (*Low*); Taganac I.

L. optimus scarcely differs from *L. cleodus*, Feld., on the upperside, and on the fore wing below the white bands are arranged as in that species, but on the hind wing the 4th band (counting from the base) does not reach the costal margin, but stops short at the subcostal nervure. The outer margin of the hind wing of the female on the upperside appears to be not so strongly marked as in that sex of *L. cleodus*.

Lampides cleodus.

Lycæna cleodus, Feld. Reise Novara, Lep. ii. p. 272, pl. xxxiv. figs. 20, 21, 22 (1865).

Sandakan (*Pryer*).

Both sexes of this species are contained in Messrs. Godman and Salvin's collection, agreeing well with typical specimens.

Lampides zebra, sp. n. (Plate XXXII. fig. 18 ♂.)

♂. Upperside very pale whitish blue, shining as in *L. cleodus*, but bluer. The apex of fore wing very slightly dusky. Hind wing sometimes unmarked, sometimes with a blackish streak near the anal angle. Underside: ground-colour rather dark grey, with pure white bands arranged as in *L. celeno* in both wings, but with the orange patch darker and much more extensive.

[1] *Cupido agnata*, Druce, P. Z. S. 1874, p. 106, pl. xvi. figs. 2–4.

[2] There are specimens in Messrs. Godman and Salvin's collection of the allied *L. evanescens*, Butl., from New Hebrides Is., which closely resemble the form *conferenda*, Butl.

♀. Upperside much like that sex of *L. cleodus*, but outer margin of fore wing generally broader brown and always without the white lunules towards the outer angle. On the hind wing the marginal spot in the first median interspace is often distinctly crowned with orange. Underside as male.

Expanse ♂ $1\frac{1}{2}$–$1\frac{7}{10}$ inch, ♀ $1\frac{2}{5}$–$1\frac{1}{2}$ inch.

Kina Balu (*Waterstr.*); Labuan (*Low*); Sarawak (*Everett*).

This is a puzzling species, and may perhaps hereafter be found to be a form of *L. celeno*, but the shining surface of the male and the unusual orange patch on the upperside which is often present in the female, markedly so in specimens from Kina Balu, seem to distinguish it. Several males from Labuan have the cilia only of the fore wing black, on the upperside.

Lampides lividus, sp. n. (Plate XXXII. fig. 20 ♂.)

♂. Upperside uniform pale shining blue, with a decided pinkish tinge; cilia pale brownish. Underside pale greyish brown, with much broken, narrow white bands, arranged somewhat as in *L. osias*. Fore wing: a white band closing the end of the cell and another beyond it, commencing below the upper discoidal nervule and reaching the submedian nervure, missing, however, the space between the 2nd and 3rd median nervules; two parallel white bands from the subcostal nervure to the 2nd median nervule beyond the middle of the wing, and below these, commencing between them and running to the submedian nervure, another white band; two rows of indistinct parallel submarginal whitish lunules, and an anticiliary whitish line. Hind wing: bands and spots arranged much as in *L. osias*, but the submarginal row of sagittate markings (which in that species are black) scarcely definable, and but slightly darker than the ground-colour of the wing.

Expanse $1\frac{7}{10}$ inch.

Labuan (*Low*).

In shape this species differs from all others described by the much more elongate fore wing, the costa being longer, the apex more produced, and the inner margin shorter.

The type specimen, which is in Messrs. Salvin and Godman's collection, is unique.

Lampides aratus.

Papilio aratus, Cr. Pap. Exot. vol. iv. pl. cccIxv. figs. *a*, *b* (1782).

Kina Balu (*Waterstr.*); Sandakan (*Pryer*).

♂. Quite typical. Female with brown outer marginal border to fore wing broader than the usual form from Amboina.

Lampides adana.

Cupido adana, Druce, P. Z. S. 1873, p. 349.

Labuan (*Low*).

This is a very doubtful species, the male being indistinguishable

from that sex of *L. aratus*. It may perhaps be distinguished from that species by its female, which has the brown outer margin much broader and the hind wing brown with bluish scales and hairs at the base. The females were referred by Mr. Herbert Druce (P. Z. S. 1873, p. 348) to *L. aratus*. The *P.* (=*L.*) *snelleni*, var. *batjanensis*, Röber ('Iris,' i. p. 55, pl. iv. fig. 109), is contained in Messrs. Godman and Salvin's collection, and is identical on both surfaces with the females of *L. adana*[1].

Thysonotis, Hübn.

Thysonotis schaeffera.

Lycæna schaeffera, Esch. Kotzeb. Reise, iii. p. 216, t. 5. fig. 25, *a*, *b* (1821).

Cupido schæffera, Druce, P. Z. S. 1873, p. 348.

Labuan (*Low*).

The specimens obtained by Low are the only representatives I have seen from Borneo[2].

Catochrysops, Boisd.

Catochrysops strabo.

Hesperia strabo, Fab. Ent. Syst. vol. iii. pt. 1, p. 287 (1793).

Catochrysops strabo, Distant & Pryer, Ann. & Mag. Nat. Hist. ser. 5, vol. xix. p. 267 (1887).

Sandakan (*Pryer*); Labuan (*Low*); S.E. Borneo, near Banjarmasin (*Wahnes*).

Catochrysops cnejus.

Hesperia cnejus, Fab. Ent. Syst. Suppl. p. 430 (1798).

Cupido cnejus, Druce, P. Z. S. 1873, p. 348.

Kina Balu (*Waterstr.*); Labuan (*Low*).

Catochrysops pandava.

Lycæna pandava, Horsf. Cat. Lep. E. I. Co. p. 84 (1829).

Kudat. Mus. Druce.

One female of the wet-season form.

Tarucus, Moore.

Tarucus waterstradti, sp. n. (Plate XXXII. fig. 21 ♀.)

♂. Upperside much like *T. theophrastus*, Fab., ♀, but with the

[1] Mr. Grose Smith has lately referred a male from Humboldt Bay to *L. batjanensis*, Röber, with some doubt ('Novitates Zoologicæ,' vol. i. p. 578, 1894). It is doubtless, as he states, allied to *L. amphissa*, Feld., but has nothing to do with *L. batjanensis*.

[2] Unfortunately the figures of the neuration of this genus given by me on plate xlvii. P. Z. S. 1893 are useless, having been incorrectly drawn from the bleached wings by the artist; the first subcostal nervule has been omitted and the costal nervure drawn much too long, its extremity as shown being really part of the first subcostal.

blue area of the fore wing reaching to the outer marginal brown border. Underside perhaps nearest to *T. venosus*, Moore. Fore wing: basal streak shorter and much broader, and extending down to the submedian nervure, the streak beyond broader and placed at a greater angle, the spots beyond the middle more in line, the submarginal row distinctly separated, and the marginal row smaller. Hind wing: a broad basal streak from just below the costal margin to the anal angle; a broad streak beyond, also from the costal to the anal margin; then a series of spots as in *T. venosus*, which are more inclined to run parallel with the streaks; then a submarginal row of large distinct spots followed by a marginal row of small spots, the three upper being simply dots, the three lower gradually increasing towards the anal angle and dusted thickly with metallic green scales. The ground-colour of both wings is slightly tinged with yellowish and all the markings are black; the cilia of both wings black.

Expanse $1\frac{1}{10}$ inch.

Kina Balu (*Waterstr.*). Type Mus. Staud.

T. waterstradti presents such differences on the underside from the Indian species, that I feel sure it is distinct.

TARUCUS PLINIUS.

Hesperia plinius, Fab. Ent. Syst. vol. iii. pt. 1, p. 284 (1793).

Lawas (*Everett*).

We possess one male obtained by Mr. Everett, which differs from Indian specimens by having broad and regular brown outer margins to both wings on the upperside, but is identical below. Messrs. Godman and Salvin's collection also contains this form from Minahassa.

CASTALIUS, Hübn.

CASTALIUS ROSIMON.

Papilio rosimon, Fab. Syst. Ent. p. 523 (1775).

Borneo (*Wahnes*).

Dr. Staudinger has sent me this species, but the precise locality is not noted. It probably came from the neighbourhood of Labuan or from the S.E. of Borneo.

CASTALIUS ETHION.

Lycæna ethion, Doubl. & Hew. Gen. Diurn. Lep. vol. ii. p. 490, pl. lxxvi. fig. 3 (1852).

Castalius ethion, Distant & Pryer, Ann. & Mag. Nat. Hist. ser. 5, vol. xix. p. 267 (1887).

Sandakan (*Pryer*); Labuan (*Low*, *Wahnes*, and *Waterstr.*); Lawas; Sarawak (*Everett*).

CASTALIUS ELNA.

Lycæna elna, Hew. Exot. Butt. vol. v. *Lycæna*, pl. i. fig. 8 (1876).

Cupido roxus, Druce, P. Z. S. 1873, p. 348 (nec Godt.).
Lycæna elerna, Staud. MS.
Kina Balu (*Waterstr.*); Elopura (*Pryer*); Labuan (*Wahnes* and *Low*).
The spots and bands vary in size and connections in the specimens before me, as noted by Mr. de Nicéville in Andaman examples.

CASTALIUS ROXUS.

Polyommatus roxus, Godt. Enc. Méth. vol. ix. p. 659 (1823).
Lawas (*Everett*).
We possess a single female obtained by Mr. Everett, which is my only authority for including the species here. *C. roxus* is stated by Felder and also by Mr. Doherty to have a short white band at the base of the costa on the underside of the hind wing, and is so figured by Mr. Distant in Rhop. Malay., but in all the specimens of *C. roxus* that I have examined the white streak is present in the fore wing only.

POLYOMMATUS, Latr.

POLYOMMATUS BŒTICUS.

Papilio bœticus, Linn. Syst. Nat. ed. xii. vol. i. p. 789 (1767).
Polyommatus bœticus, Distant & Pryer, Ann. & Mag. Nat. Hist. ser. 5, vol. xix. p. 267 (1887).
Kina Balu (*Waterstr.*, 1200–1500 m.); Sandakan (*Pryer*).

AMBLYPODIA, Horsf.

AMBLYPODIA NARADA.

Amblypodia narada, Horsf. Cat. Lep. E. I. C. p. 98, pl. i. fig. 8 (1829).
Sarawak.
A single male is contained in Messrs. Godman and Salvin's collection.

AMBLYPODIA ANITA.

Amblypodia anita, Hew. Cat. Lycæn. B. M. p. 14, pl. viii. figs. 90, 91 (1862).
Trusan (*Everett*); Labuan (*Low*).

IRAOTA, Moore.

IRAOTA ROCHANA.

Amblypodia rochana, Horsf. Cat. Lep. E. I. C. p. 108 (1829).
Deudorix timoleon, Druce, P. Z. S. 1873, p. 352 (nec Stoll).
Kina Balu (*Waterstr.*); Labuan (*Low* and *Mus. Staud.*).
A female sent by Dr. Staudinger measures $2\frac{1}{20}$ inches. I also quite fail to see how Mr. Distant's *I. boswelliana* differs from this species.

IRAOTA NILA. (Plate XXXIII. fig. 1 ♂.)

Iraota nila, Distant, Rhop. Malay. p. 462, pl. xliv. fig. 24 ♀ (1886); de Nicév. Butt. Ind. etc. iii. p. 217 (1890).

♂. Upperside very dark uniform purplish black; inner margin of fore wing pale brown. Both wings sparingly dusted between the nervules on the discs with bright green scales which change to blue in some lights. Thorax and abdomen black, covered with greenish hairs. Two tails of about equal length, tipped with white, one on the submedian nervure, the other on the first median nervule. Underside as male.

Kina Balu (*Waterstr.*).

I have received several females from Kina Balu, which agree well with Mr. Distant's figure of the underside, but the outer margins above are very narrowly black, and the male described above which is in Dr. Staudinger's collection. The male agrees in neuration with the male *Iraota*, and has four subcostal nervules like it, whilst the female has but three. The lower discoidal nervule in both sexes originates from the upper discoidal, and in Mr. Distant's figure is incorrectly drawn, as also are the antennæ. As has been pointed out by Mr. de Nicéville, the name *nila* has already been used for a species of this genus by Kollar; but as his name is a synonym of *I. timoleon*, Stoll, it may be used for Mr. Distant's species.

SURENDRA, Moore.

SURENDRA PALOWNA.

Amblypodia palowna, Staud. Iris, ii. p. 131 (1889).

Amblypodia amisena, Druce (nec Hew.), P. Z. S. 1873, p. 354.

Kina Balu (*Everett*); Borneo (*Low*).

I have compared these specimens with the type of Dr. Staudinger's *A. palowna* from the island of Palawan, and find that they are identical. *A. palowna* can be distinguished from *A. amisena*, Hew., by the hind wing being notched only, in both sexes—*A. amisena* possessing one tail in the male and two in the female. The underside of the hind wing in *A. amisena* is thickly sprinkled with green scales towards the anal angle, whilst in *A. palowna* these scales are generally entirely absent. I am inclined to think, however, that when a larger series of these butterflies can be examined, these characters will be found to be insufficient to distinguish the two species individually or from Horsfield's *A. vivarna* from Java.

Messrs. Godman and Salvin possess one female, obtained by Mr. Low, on which the purple gloss is entirely absent.

ARHOPALA, Boisd.

All the species here included have, with the exception of the well-known *A. centaurus*, Fab., and *A. apidanus*, Cr., been carefully compared with the actual type specimens, and besides these

there are in Messrs. Godman and Salvin's and our own collection about a dozen species which I am unable to determine; but as Mr. G. T. Bethune-Baker is at present engaged on a monograph of the whole genus, I have thought it better to include only those species which I can identify with absolute certainty. Besides these unidentified species, most of which are probably undescribed, there are doubtless many new forms from Kina Balu. Mr. Herbert Druce recorded four species in his paper in P. Z. S. 1873, pp. 353, 354, viz. *A. adatha*, Hew., *A. amphimuta*, Feld., *A. hypomuta*, Hew., and *A. lycœnaria*, Hew., which I do not include, as I find that the specimens, which in some cases are not labelled with the names, cannot be referred to these species.

Arhopala centaurus.

Papilio centaurus, Fab. Syst. Ent. p. 520 (1775).
Amblypodia nakula, Druce, P. Z. S. 1873, p. 353.
Narathura centaurus, Distant & Pryer, Ann. & Mag. Nat. Hist. ser. 5, vol. xix. p. 269 (1887).
Sandakan (*Pryer*); Labuan (*Low*).

Arhopala agnis.

Arhopala agnis, Feld. Reise Nov., Lep. ii. p. 228 (1865).
Amblypodia anarte, Druce, P. Z. S. 1873, p. 353.
Labuan (*Low*).
There are two males in Messrs. Godman and Salvin's collection which are identical with Felder's type; also a female which was referred to *A. anarte* by Mr. Herbert Druce.

Arhopala amphea.

Arhopala amphea, Feld. Reise Novara, Lep. ii. p. 234, pl. xxix. fig. 19 (1865).
Amblypolia abseus, Druce, P. Z. S. 1873, p. 353.
Sandakan (*Pryer*); Labuan (*Low*).
Bornean specimens agree well with Philippine Island specimens, and if *A. amphea* is considered distinct must stand under that name.

Arhopala atosia?

Amblypodia atosia, Hew. Ill. Diurn. Lep., *Lyc.* p. 9, pl. ii. figs. 8, 9 (1863).
Amblypodia atosia, Druce, P. Z. S. 1873, p. 353.
Labuan (*Low*); Borneo (*Mus. Druce*, ex Rev. R. Murray's collection).
All the Bornean specimens before me are identical with Hewitson's type on both surfaces, but are without the tails, so that I place them under this name with considerable doubt. Mr. de Nicéville's figure of *A. atosia*, Hew. (Butt. Ind. etc. iii. frontispiece, fig. 138, 1890), is very little like Hewitson's type, as on the upperside it appears to be rich purple, while *A. atosia* is lilac-blue,

and on the underside is much less distinctly marked than his figure shows.

ARHOPALA AROA.

Amblypodia aroa, Hew. Ill. Diurn. Lep., *Lyc.* p. 13, pl. ii. fig. 13 (1863).

Trusan (*Everett*).

A single male in Messrs. Godman and Salvin's collection, which differs only from Hewitson's type from Sumatra by the bands on the underside being slightly wider, and by the metallic patch near the anal angle being composed of blue in place of green scales.

ARHOPALA PRYERI.

Narathura pryeri, Butl. P. Z. S. 1892, p. 121.

Sandakan (*Pryer*); Sarawak (*Everett*).

Mr. Bethune-Baker will probably tell us to which species this is most nearly allied if it should prove to be a distinct one. It is certainly not closely allied to *A. amphimuta*, Feld., as stated by Dr. Butler, as that species belongs to the tailless group and *N. pryeri* to the tailed, as an examination of the type proves.

ARHOPALA ALLATA.

Amblypodia allata, Stgr. Iris, ii. p. 125, pl. ii. fig. 1, ♀ (1889).

Labuan (*Low*).

Messrs. Godman and Salvin possess a male which differs only from Dr. Staudinger's type, ♂, by the dark brown borders on the upperside being rather narrower.

ARHOPALA ACHELOUS.

Amblypodia achelous, Hew. Cat. Lyc. B. M. p. 7, pl. v. figs. 47, 48 (1862); Druce, P. Z. S. 1873, p. 354.

Labuan (*Low*).

ARHOPALA ANUNDA.

Amblypodia anunda, Hew. Ill. Diurn. Lep. p. 14 *a*, pl. 111 *a*, fig. 32 (1869).

Amblypodia anuda, Druce, P. Z. S. 1873, p. 354.

Labuan (*Low*).

ARHOPALA ELOPURA.

Arhopala elopura, H. H. Druce, Ent. Mo. Mag. ser. 2, vol. v. p. 9 (1894).

Kina Balu (*Waterstr.*); Elopura (*Pryer*). Types Mus. Druce.

Taken by Mr. Pryer in March. Messrs. Godman and Salvin's collection also contains a male.

ARHOPALA APIDANUS.

Papilio apidanus, Cr. Pap. Ex. vol. ii. pl. cxxxvii. figs. F, G (1777).

Amblypodia aphidanus, Druce, P. Z. S. 1873.

Labuan (*Low*); Lawas (*Everett*).

ARHOPALA OLINDA.

Amblypodia olinda, Druce, P. Z. S. 1873, p. 354, pl. xxxiii. fig. 5, ♀.

Amblypodia buxtoni, Hew. Ill. Diurn. Lep., *Lyc.* Supp. p. 22, pl. viii. figs. 68, 69, ♀ (1878).

Narathura buxtoni, Distant & Pryer, Ann. & Mag. Nat. Hist. ser. 5, vol. xix. p. 269 (1887).

Sandakan (*Pryer*); Labuan (*Low*).

On comparing the type (a female) of *A. olinda* with that of *A. buxtoni*, I find that they cannot be separated, and as Hewitson's species was described some five years later than Mr. Herbert Druce's, *A. olinda* is the name by which the insect should be known. The figure given in the P. Z. S. is not a good one, as it shows an equally broad brown marginal border to both wings; this, however, is not so, as in the fore wing the apex is rather broadly brown and in the hind wing the blue area extends nearly to the outer margin. The type of *A. olinda* is now in Messrs. Godman and Salvin's collection.

ARHOPALA CÆCA.

Amblypodia cæca, Hew. Ill. Diurn. Lep., *Lyc.* p. 14, pl. iv. fig. 28 (1863).

Sarawak (*Hew.*).

This species is known to me only by the type in the Hewitson collection.

ARHOPALA AUREA.

Amblypodia aurea, Hew. Cat. Lyc. B. M. p. 8, pl. viii. figs. 87, 88 (1862); Druce, P. Z. S. 1873, p. 353.

Sarawak (*Hew.*); Labuan (*Low*).

ARHOPALA FARQUHARI.

Narathura farquhari, Distant, Rhop. Malay. p. 264, pl. xxiii. fig. 3, ♂ (1885).

Arhopala farquhari, de Nicév. Butt. Ind. etc. iii. p. 264 (1890).

S.E. Borneo.

I include this species here on the authority of Mr. Doherty, not having seen a specimen from Borneo. Messrs. Godman and Salvin possess examples from Malacca, Sumatra, and the Philippine Is.

ARHOPALA HORSFIELDI.

Amblypodia horsfieldi, Pagenstr. Beit. Lep. Faun. Malay. Arch. vi. p. 15 (1890).

Arhopala basiviridis, de Nicév. J. B. N. H. Soc. 1891, p. 373, pl. G. fig. 22, ♂.

Borneo.

Mr. de Nicéville records this insect from Borneo, whence it was also obtained by Mr. Doherty. Dr. Pagenstecher describes it from Eastern Java.

ARHOPALA ANNIELLA.

Amplypodia anniella, Hew. Cat. Lyc. B. M. p. 10, pl. viii. figs. 83, 84 (1862); Druce, P. Z. S. 1873, p. 353.

Kina Balu (*Waterstr.*); Labuan (*Low*).

Bornean specimens agree well with Hewitson's type from Singapore.

ARHOPALA AGESIAS.

Amblypodia agesias, Hew. Cat. Lyc. B. M. p. 11, pl. vi. figs. 55, 56, ♀ (1862).

Sandakan (*Pryer*).

Several specimens agreeing well with the type.

Var. KINABALA, nov.

Differs from the type by being generally larger and with the spots on the underside larger and darker and with an additional spot on the costa of the fore wing.

Kina Balu (*Waterstr.*); Labuan (*Low*).

This may prove to be a distinct species, but for the present I do not think it advisable to treat it as such.

ARHOPALA SIMILIS, sp. n.

Amplypodia agesias, var. *a*, Hew.

♂ ♀. Allied to *A. agesias*, Hew. Upperside much the same. Underside differs by the fore wing being entirely without the discal band of spots which is placed beyond the end of the cell.

Sandakan (*Pryer*). Mus. G. & S. and Druce.

Mr. de Nicéville has recorded this species from Selangor in the Malay Peninsula. It is probably quite distinct from *A. agesias* and has been received in about equal numbers. Hewitson describes *A. agesias* as possessing four spots in the discal band of the fore wing, but counting from the commencement on the costa there are seven or eight, the lowest sometimes being obsolete.

ARHOPALA MYRTALE.

Amblypodia myrtale, Staud. Iris, i. p. 126, pl. i. fig. 16, ♂ (1889).

Sandakan and Elopura (*Pryer*); Labuan (*Low*).

I have before me several specimens which agree well with Dr. Staudinger's type (and figure) from Palawan.

ARHOPALA AMPHIMUTA.

Amblypodia amphimuta, Feld. Wien. ent. Monat. vol. iv. p. 396 (1860).

Narathura amphimuta, Distant & Pryer, Ann. & Mag. Nat. Hist. ser. 5, vol. xix. p. 269 (1887).

Sandakan (*Pryer*).

Included here on the authority of Messrs. Distant and Pryer, as I have not seen a Bornean specimen which agrees exactly with Felder's type.

ARHOPALA ANTIMUTA.

Arhopala antimuta, Feld. Reise Nov., Lep. vol. ii. p. 233 (1865).
Arhopala davisoni, de Nicév. Butt. Ind. etc. iii. p. 280, frontispiece, fig. 135, ♂ (1890).

Sandakan and Elopura (*Pryer*); Labuan (*Low*).

I have been able to examine the type of *A. antimuta* in the Felder collection, and find that *A. davisoni* is identical with it. It is entirely without the large round patch of scales described by Mr. de Nicéville (Butt. Ind. etc. iii. p. 277), but not by Felder, as belonging to it. Mr. de Nicéville appears to have confounded the species which I have doubtfully referred to *A. atosia*, Hew., with *A. antimuta*, but an examination of Felder's type proves that this is incorrect. The blue colour of the type and only specimen in the Felder collection is quite dark, much as in *A. aroa*, but darker, whilst the specimens he probably refers to are quite a different colour. Mr. H. J. Elwes records it from Borneo (P. Z. S. 1892, p. 633)[1].

ARHOPALA ALACONIA.

Amblypodia alaconia, Hew. Ill. Diurn. Lep., *Lyc.* p. 14, pl. iii *c*. figs. 52, 53 (1869); Druce, P. Z. S. 1873, p. 353.

Labuan (*Low*).

Below will be found described what I believe to be a new species of the genus *Mahathala*, Moore[2].

ARHOPALA EPIMUTA.

Amblypodia epimuta, Moore, Cat. Lep. E. I. C. p. 42 (1857).

Borneo (*Low*).

[1] Messrs. Godman and Salvin's collection contains a single specimen of *A. inornata*, Feld., from the Philippine Is., which I have compared with Felder's type. The figure is a fairly good one, and anyone possessing the species should have no difficulty in recognizing it on account of its unusual shape. The hind wing below is entirely without any metallic scales at the anal angle. It is apparently a rare species, as the specimen here mentioned is recorded for the first time since it was described.

[2] MAHATHALA GONE, sp. n.

Allied to *M. ameria*, Hew. Upperside dark purple-blue with much broader black margins; cilia, tails, and anal fold of hind wing buff-colour. Underside—fore wing dull greyish brown with pale bars and markings arranged as in *M. ameria*, but with the ultra-median band wider, straighter, and not angled on the costa as in that species: hind wing uniform dull yellowish stone-colour, sprinkled with minute black dots, generally largest on the nervules; two dull black irregular spots in line near the base just below the median nervure, the largest at the origin of first median nervule. A few patches of pale reddish scales, thickest near the base. Head, thorax, and abdomen black above, yellowish beneath. Antennæ black.

Expanse $1\frac{7}{10}$ inch.

Hab. Mongolia. Type Mns. G. & S.

The type specimen, which was formerly in Mr. Druce's collection, is unique, and differs so much from all specimens I have seen of *M. ameria* that I feel sure it is another species. I cannot determine to which sex the specimen described belongs.

Mr. Moore's type is now in the British Museum Collection. Mr. Bethune-Baker will doubtless decide whether the insects from India afterwards described by Hewitson in the British Museum Catalogue as *A. epimuta* are identical with the type.

Curetis, Hübn.

Mr. de Nicéville has expressed the opinion that there are but two species of this genus occurring within Indian limits (Butt. Ind. etc. vol. iii. p. 285), and later (p. 291) that *C. æsopus* is a distinct connecting link between these two. In arranging the Bornean species I have found the same difficulty in pairing the females as he mentions with regard to those from India. So far as I can ascertain, the ochreous-coloured female is the only form that is found in Borneo, as I have not come across a single white one.

Curetis tagalica.

Anops tagalica, Feld. Reise Novara, Lep. ii. p. 221, pl. xxviii. figs. 19, 20 (1865).

Curetis tagalica, Druce, P. Z. S. 1873, p. 353.

Labuan (*Low*).

C. tagalica is scarcely distinguishable from *C. phædrus*, Fab., on the upperside, but on the underside Bornean specimens are usually very strongly suffused with blackish brown.

Curetis nesophila.

Phædra nesophila, Feld. Wien. ent. Mon. vi. p. 289 (1862).

Curetis barsine, Druce, P. Z. S. 1873, p. 353 (nec Feld.).

Kina Balu (*Waterstr.*); Sarawak (*Platen*); Labuan (*Low*, *Waterstr.*, and *Wahnes*).

In *C. nesophila* the cupreous red does not extend above the subcostal nervure in the fore wing except just at the base. Mr. Herbert Druce referred these specimens to *C. barsine*, Feld., from Amboina, which has a female with white spots on the discs; but as there appears to be no evidence of any white females occurring in Borneo, I think it better to place them under *P. nesophila*.

Curetis minima.

Curetis minima, Distant & Pryer, Ann. & Mag. Nat. Hist. ser. 5, vol. xix. p. 265 (1887).

Sandakan (*Pryer*).

I have not seen this species, which is described as being near to *C. insularis*, Horsf., from Java.

Curetis æsopus.

Papilio æsopus, Fab. Sp. Ins. vol. ii. p. 125 (1781).

Kina Balu (*Waterstr.*); Labuan (*Waterstr.* and *Wahnes*); S.E. Borneo, near Banjarmasin (*Wahnes*).

The specimens before me vary as to the extent of cupreous red above the subcostal nervure in the hind wing. In some examples the outer half only of the costal margin is narrowly brown, in others the whole margin is broadly brown from the base. Between these two forms are all intermediates.

CURETIS MALAYICA.

Amops malayica, Feld. Reise Novara, Lep. ii. p. 221, pl. xxviii. fig. 18 (1865).

Kina Balu (*Waterstr.*); S.E. Borneo, near Banjarmasin (*Wahnes*).

A female from Kina Balu has the costal margin of the hind wing very pale, almost white.

ILERDA, Doubl.

ILERDA KIANA.

Sithon kiana, Grose Smith, Ann. & Mag. Nat. Hist. ser. 6. vol. iii. p. 317 (1889); Whitehead, Kina Balu, p. 118, pl. xx. figs. 7, 8 (1893).

Kina Balu (*Everett, Whitehead, Waterstradt*).

The apparent likeness of the underside of this Butterfly to species of the genus *Ilerda* led me to carefully examine its neuration, and on bleaching specimens of both sexes I find that the neuration is exactly the same as in *I. epicles*, Godt. It agrees also in the form of the antennæ and in the absence of any secondary sexual characters; the only difference that I can detect is that the terminal joint of the palpus is slightly longer than in *I. epicles*. It has been received in some numbers from Kina Balu, and is remarkably different from any other species of the genus. Both sexes are much alike, the female having a rather less extensive and greyer blue anal patch with larger black spots. Mr. Grose Smith has kindly shown me his type.

DACALANA, Moore.

DACALANA VIDURA.

Amblypodia vidura, Horsf. Cat. Lep. E. I. C. p. 113 (1829)[1].

Iolaus vidura, Druce, P. Z. S. 1873, p. 351.

Dacalana vidura, Distant & Pryer, Ann. & Mag. Nat. Hist. ser. 5, vol. xix. p. 268 (1887).

Sandakan; Elopura (*Pryer*); Trusan (*Everett*); Labuan (*Low*); S.E. Borneo, near Banjarmasin (*Wahnes*).

The white band crossing the wings on the underside varies somewhat in width in Bornean specimens as it does in Javan.

[1] Messrs. Godman and Salvin possess a male *Dacalana burmana*, Moore, collected in Burmah by Hume, which agrees in venation exactly with *D. vidura*. Indeed it is very doubtful if *D. burmana* can claim specific rank from that species; the upperside is certainly a darker blue colour, but the characters given for the underside are valueless. Mr. H. J. Elwes gives it as a synonym in his paper in the P. Z. S. 1892, on Butterflies collected by Mr. Doherty in the Naga and Karen hills and Perak.

ARRHENOTHRIX, de Nicév.

It is with much pleasure that I am able to add another species to this interesting genus; I have carefully examined the specimen and find that it agrees exactly in venation with *A. penicilligera*, de Nicév.,—thus proving that *Dacalana* and *Arrhenothrix* are found flying together.

ARRHENOTHRIX LOWII, sp. n. (Plate XXXIII. fig. 2 ♂.)

♂. Upperside much like *A. penicilligera*, but of a much duller and more purple shade of blue; the apex and outer margin of fore wing considerably less broadly black. The outer margins of both wings, especially that of the hind wing, much more convex than in *A. penicilligera*. The whitish tuft of hairs covering the brown patch on the fore wing as in *A. penicilligera*. Underside differs from that species in the more russet-brown colour and by the complete absence of the conspicuous white band which crosses both wings. The lobe also is smaller and the tails shorter and more slender, especially that one on the submedian nervure, which is scarcely half the length of the corresponding tail on *A. penicilligera*.

Expanse $1\frac{1}{2}$ inch.

Labuan (*Low*).

The type of this species, and the only specimen known to me, is in Messrs. Godman and Salvin's collection. A glance at the underside will at once distinguish this from its congener.

PRATAPA, Moore.

PRATAPA LUCIDUS, sp. n. (Plate XXXIII. fig. 3 ♂.)

Iolaus cippus, Druce, P. Z. S. 1873, p. 351.

♂. Closely allied to *P. cippus*, Fab. Differs on the underside by the entire absence of the linear band, excepting over the orange patch at the anal angle of the hind wing, where it is present but very narrow. The black spots are smaller, and the orange patch is darker and not divided as in *P. cippus*.

Expanse as *P. cippus*.

Labuan (*Low* and *Waterstr.*). Type Mus. G. & S.

The specimens before me show no variation. Messrs. Godman and Salvin's collection also contains this species from Sumatra.

PRATAPA SANNIO, sp. n. (Plate XXXIII. fig. 15 ♂.)

♂. Allied to *P. anysis*, Hew. Upperside much the same, but with the shining surface on the hind wing extending further down towards the apex. Underside differs from *P. anysis* by the band which crosses both wings being narrow and more sordid white, by the shining surface along the inner margin of the fore wing being blacker, and by the broken black line in the hind wing being more curved outwardly towards the apex and more inclined to be semi-

circular over the orange patch, which is rather less extensive. The spot on the lobe, which in *P. anysis* is completely black, is faintly crowned with orange. The shape of the hind wing is entirely different, it being less produced at the costal and anal extremities and the outer margin much more rounded. Tuft of hairs on inner margin of fore wing dark brown.

Expanse $1\frac{3}{5}$ inch.

Sandakan (*Pryer*). Type Mus. G. & S.

Allied to *P. anysis*, Hew., and *P. cremera*, de Nicév., but has a much narrower band below, besides other differences pointed out in the description[1].

PRATAPA DEVANA, sp. n. (Plate XXXIII. fig. 4 ♂, 5 ♀.)

Iolaus devana, Staud. MS.

Allied to *P. deva*, Moore.

♂. Upperside very pale shining blue, palest on the disc of the fore wing; apical half and outer margin of fore wing and costal margin and apex of hind wing dark greyish brown; an outer-marginal row of more or less distinct dark brown spots on the hind wing, and a black anteciliary line; the shining patch is large and prominent, spreading all over the cell, and centred by a deep black patch of differently placed scales resting on the subcostal nervure; an orange spot in the lobe; anal fold greyish white. Underside differs from *P. deva* by being of a more pinkish tinge, with the linear band which crosses both wings more distinct, less broken, and placed closer to the outer margins; the orange patch surrounding the upper black spot on the margin much more extensive. The tuft of hairs on inner margin of fore wing jet-black. Abdomen and thorax blue above, whitish below.

♀. Upperside pale lavender-blue, paler on the discs of the fore wing, more extensive than in the male; apex and outer margin of fore wing and apex of hind wing greyish brown; a distinct black streak almost closing the cell of the fore wing, and an outer-marginal row of black spots on the hind wing. Underside as male, with a faint mark closing the cell of the fore wing, caused by the black mark on the upperside.

Expanse, ♂ $1\frac{3}{5}$, ♀ $1\frac{1}{2}$ inch.

Kina Balu and Labuan (*Waterstr.*). Types Mus. Staud.

P. devana is by far the palest coloured species in the genus, being paler than the female *P. cotys*, Hew. It is a very distinct species, and the black mark closing the cell of the fore wing in the female is quite unusual.

[1] Mr. H. J. Elwes has lately remarked (P. Z. S. 1892, p. 637) that the tuft of hairs on the margin below is absent in *C. cotys*, whilst Mr. de Nicéville (Butt. Ind. etc. vol. iii. p. 343) states that the tuft of hairs in *C. anysis* is black instead of dark brown in *C. cotys*. Specimens of *C. cotys* that I have examined from Darjeeling certainly have the usual tuft, while in a specimen of *C. anysis* from the Philippines in Messrs. Godman and Salvin's collection the tuft is dark brown as in *C. cotys*.

PRATAPA CALCULIS, sp. n. (Plate XXXIII. figs. 6 ♂, 7 ♀.)

♂. Upperside brilliant deep blue, colour of *P. deva*, Moore. Fore wing—apex from beyond the cell black, gradually narrowing towards outer angle; a short black line partially closing the cell from the subcostal nervule. Hind wing—costal margin and apex rather narrowly black; the brown shining patch more extensive than in *P. deva*, reaching below the median nervure, with its outer edge straight and clearly defined, and with the darker central patch almost obsolete and placed above the subcostal nervure; anal fold greyish brown; a black anteciliary line from apex to anal angle; cilia black, whitish near the tails, which are black bordered and tipped with white; lobe orange, with a few metallic scales. Underside much like that of *Tajuria isæus*, Hew., but the ground-colour darker and the common linear band placed closer to the outer margins; a broad orange streak on the costa of fore wing close to the base. The black spots and orange patch at anal angle of hind wing are just as in *T. isæus*; tuft of hairs on inner margin cream-colour.

♀. Upperside pale lavender-blue with paler brown margins; the nervules dusted with brownish. Underside as male, but orange streak on costa of fore wing less conspicuous.

Expanse, ♂ ♀, $1\frac{2}{5}$ inch.

Kina Balu (*Waterstr.*).

This is a very distinct species, not closely allied to any with which I am acquainted. The types are in Dr. Staudinger's collection.

APHNÆUS, Hübn.

APHNÆUS SYAMA.

Amblypodia syama, Horsf. Cat. Lep. E. I. C. p. 107 (1829).

The ground-colour of the underside of all the Bornean specimens I have examined is darker than the typical Javan form. Specimens having the bands red occur, as also those with the bands black.

Labuan (*Low* and *Waterstr.*).

Ab. FRIGIDUS.

Aphnæus frigidus, Druce, P. Z. S. 1873, p. 350, pl. xxxii. fig. 10.

I feel certain that the species described as above cannot hold good, but that it is simply an aberration of the well-known *A. syama*, On the underside of the left fore wing the 3rd band (counting from the base) is represented by a spot on the costa, whilst on the right fore wing the 3rd and 4th bands are both represented in a like manner. Messrs. Godman and Salvin possess a specimen in which the 3rd and 4th bands have entirely disappeared; also another, in which the 3rd band is well developed and has attached to it the lower portion of the 4th band, the upper part of which is wanting. The hind wing of typical *A. frigidus* also appears quite different from *A. syama*, the 3rd band being replaced by a

large spot on the costa; but one of the specimens referred to above has this spot much smaller, whilst the other has the spot and below it the band which is bent inwards just under the spot and becomes partially amalgamated with the 2nd band.

It is curious that *A. syama* should show such great variation in Borneo. In Continental India it varies much in the ground-colour, but I have seen no specimens at all approaching these, neither does Mr. de Nicéville mention any. Mr. Herbert Druce did not give *A. syama* in his list; probably they were received after it was published.

Aphnæus lohita.

Amblypodia lohita, Horsf. Cat. Lep. E. I. C. p. 106 (1829).

Kina Balu and Labuan (*Waterstr.*).

A. lohita does not appear to have been obtained by Low, but Dr. Staudinger has received it in considerable numbers—one large female from Kina Balu measuring $1\frac{9}{10}$ inch.

Aphnæus vixinga.

Aphnæus vixinga, Hew. Ent. Mo. Mag. xii. p. 39 (1875).

Borneo (*Low*).

This is a large and distinct species known to me only by the type. The ground-colour of the underside is very dark, and the silver spots are quite different from the other two Bornean representatives of the genus.

Tajuria, Moore.

All the species here included in this genus have three subcostal nervules in the fore wing and are without any secondary sexual characters.

Tajuria jalindra.

Amblypodia jalindra, Horsf. Cat. Lep. E. I. C. p. 109 (1829).
Sithon jalindra, Druce, P. Z. S. 1873, p. 352.

Labuan (*Low* and *Waterstr.*).

Tajuria maculatus.

Iolaus maculatus, Hew. Ill. Diurn. Lep., *Lyc.* p. 47, pl. xxi. figs. 29, 30 (1865).

Kina Balu (*Waterstr.*).

T. maculatus is, I believe, recorded here for the first time out of India, where it occurs in Sikkim and Assam.

Tajuria longinus.

Hesperia longinus, Fab. Ent. Syst. Suppl. vol. v. p. 430 (1798).

Hab. Sarawak (*Mus. Druce*).

We possess a single male specimen, which is my only authority for including this well-known species.

Tajuria dominus, sp. n. (Plate XXXIII. fig. 12 ♂.)

♂. Upperside brilliant shining cerulean blue, much like *P. cleobis*, Godt., but more opalescent; fore wing with the apex broadly black and with a quadrate black "sexual mark" occupying rather more than the outer half of the cell; hind wing—costal margin greyish, darker towards the apex, which is black. Underside differs from *P. cleobis* by the ground-colour being darker, the linear band being placed closer in, the black spots at the anal angle being much larger, and the yellow being much more extensive and confluent. The patch between the spots is dusted with metallic scales.

Expanse $1\frac{2}{5}$ inch.

Kina Balu (*Waterstr.*).

T. dominus is allied to *T. melastigma*[1], de Nicév., but in that species the "sexual mark" is placed beyond the cell. It is also much like *T. cleoboides*[2], Elwes, which is described as possessing only two subcostal nervules to the fore wing, whilst *T. dominus* has three. Messrs. Godman and Salvin possess a specimen, which I believe to be referable to *T. dominus*, which differs only from the type on the underside by the black spots being smaller and the yellow less extensive; it is labelled "Burmah."

Tajuria mantra.

Myrina mantra, Feld. Reise Novara, Lep. vol. ii. p. 238, pl. xxx. fig. 14 (1865).

Iolaus mantra, Druce, P. Z. S. 1873, p. 351.

Iolaus cyrinus, Staud. MS.

Kina Balu (*Waterstr.*); Labuan (*Low*).

T. mantra is a common insect in Borneo.

Tajuria cyrus, sp. n. (Plate XXXIII. figs. 10 ♂, 11 ♀.)

Iolaus cyrus, Staud. MS.

♂. Allied to *T. mantra*, Felder, but larger, and the outer margin of fore wing convex. Upperside blue, slightly paler, without the opalescence, and more extensive in both wings; a black spot in the lobe crowned with orange. Underside differs from that of *T. mantra* ♂ by the ground being much paler, by the linear band of the fore wing being narrower and indistinct, by the inner margin of the fore wing being broadly white for nearly its whole length, and by the orange patches at the anal angle of the hind wing being of a deeper shade.

♀. Differs from the male by the blue being of a slightly paler shade and considerably more extensive in the fore wing; the black

[1] *T. melastigma*, de Nicév,. P. Z. S. 1887, pl. xl. fig. 1.

[2] *T. cleoboides*, Elwes, P. Z. S. 1892, p. 637, pl. xliv. figs. 4, 5.

T. melastigma is described as having the "sexual mark" shining black, but in the figure it is shown as pale brown, much the colour of the underside. *T. cleoboides* is described as having "a large round velvet patch free from blue scales in the cell of the fore wing"—presumably a black patch; but this does not appear in the figure of the insect.

spot in the lobe and the orange crowning it are both larger. Underside as male, but inner margin of fore wing not so distinctly white and the linear band of fore wing more prominent.

Expanse, ♂ ♀, 2 inches.

Kina Balu (*Waterstr.*).

This is a fine and, I believe, quite distinct species, which should be easily recognized.

Tajuria tussis, sp. n. (Plate XXXIII. figs. 8 ♂, 9 ♀.)

♂. Pale blue, much the colour of *T. isæus*, Hew. Differing from that species by the apical half of the fore wing being black, the black apex extending from just beyond the cell to the outer angle. The underside differs from *T. isæus* by the common linear band being placed nearer to the margins, by having a pale orange streak at the base of the costa on the fore wing, and by the orange at the anal angle being darker.

♀. Upperside dull violaceous blue, more extensive in the fore wing than in male; hind wing with the nervules brown and with a marginal row of ill-defined brown spots. Underside as male, but the costal streak but slightly ochreous and barely discernible, whilst the linear bands appear to be further in.

Expanse, ♂ $1\frac{3}{40}$ inch, ♀ $1\frac{3}{5}$ inch.

Labuan (*Waterstr.*).

The types of this species are the only specimens I have seen and belong to Dr. Staudinger. I do not feel quite certain that the female here described belongs to the male, as the linear band is placed somewhat further in—it is not, however, anything like so far in as in *T. isæus*.

Tajuria isæus.

Iolaus isæus, Hew. Ill. Diurn. Lep., *Lyc.* p. 44, pl. xix. figs. 13, 14 (1865).

Sarawak (*Hew.*).

Hewitson is my only authority for including this species.

Mr. H. J. Elwes has lately pointed out[1] that *T. relata*, Distant, is conspecific with *T. isæus*, and after an examination of the type ♂ kindly sent me by Dr. Staudinger, I am able to confirm this statement—it is identical with Hewitson's species.

Tajuria cato, sp. n. (Plate XXXIII. figs. 13 ♂, 14 ♀.)

♂. Upperside bright blue, brighter and darker than in *T. mantra* and somewhat differently placed—in the fore wing there being less in the cell and more in the first median interspace, and in the hind wing more extensive; apex and outer margin black, with a large inconspicuous black patch of differently placed scales occupying more than the upper half of the cell in the fore wing. Anal fold dark greyish; lobe with a black spot dusted with a few metallic scales, but no orange. Tails black, tipped with white, the lower with bluish cilia. Underside rich dark reddish brown, with

[1] P. Z. S. 1892, p. 637.

a common, straight, dark red linear band outwardly edged with white, angled towards anal margin of hind wing; inner margin of fore wing paler greyish brown. The cells of both wings are closed by faint marks caused apparently by appressions. Hind wing—a large black spot crowned by metallic-blue scales occupying the whole of the lobe, above that from the submedian nervure to the third median nervule a large greyish patch thickly dusted with black scales, and resting on this between the first and second median nervules a rather small black spot crowned with dark red. Thorax and abdomen bluish above, dark buff below. Head brown; antennæ black, ringed with white. All the legs black, spotted with pale buff. Cilia on both surfaces cupreous brown, except at anal angle, where it is greyish.

♀. Upperside paler and more lavender-blue; the blue more extensive in the fore wing and reaching beyond the end of the cell, at which there is a white spot; the black spot in the lobe is faintly crowned with orange scales. Underside as male but paler.

Expanse, ♂ ♀, 1½ inch.

Kina Balu (*Waterstr.*).

This is a beautiful species, not closely allied to any other. The distinctly spotted legs are quite unusual in the *mantra* group. The types belong to Dr. Staudinger's collection.

TAJURIA TRAVANA.

Myrina travana, Hew. Ill. Diurn. Lep., *Lyc.* p. 38, pl. xvii. fig. 59, 60 (1865).

Sithon travana, Druce, P. Z. S. 1873, p. 352.

Kina Balu (*Waterstr.*); Sandakan (*Pryer*); Labuan (*Low*).

Mr. de Nicéville (Butt. India, iii. p. 38, 1890) is of opinion that this species should be treated as a local race only of *T. jangala*, Horsf.

Two females of *T. jangala*, Horsf., in Messrs. Godman and Salvin's collection are entirely brown on the upperside.

TAJURIA DONATANA, de Nicév.

Tajuria donatana, de Nicév. J. A. S. B. vol. lvii. p. 287, pl. xiv. fig. 5 (1888); Butt. Ind. etc. iii. p. 382, pl. xxv. fig. 154, ♂ (1890).

Labuan (*Low*).

Messrs. Godman and Salvin's collection contains a single male specimen of this species, which differs only from the figure (no. 154, Butt. India, iii.) by the black spot in first median interspace on the underside of hind wing being somewhat larger.

PURLISA, Distant.

PURLISA GIGANTEUS.

Iolaus (*Purlisa*) *giganteus*, Distant, Ent. Mo. Mag. vol. xvii. p. 245 (1881).

Purlisa gigantea, Distant, Rhop. Malay. p. 250, pl. xxi. fig. 28 (1885).

Sarawak (*Mus. Druce*).

We possess a fine female specimen which agrees well with Mr. Distant's figure and expands no less than $2\frac{1}{2}$ inches, whilst the tail on the submedian nervure measures $\frac{3}{5}$ inch and is much broader than in any of the species of *Tajuria*, the nervure being distinctly visible along it almost to the tip; so that it is more probably allied to *Cheritra*, Moore, where it was placed by Mr. Distant, than to *Tajuria* as suggested by Mr. de Nicéville (Butt. India, iii. pp. 385, 386, 1890).

It must be a rare insect wherever it occurs, as being so conspicuous it would have been more frequently captured.

The only other recorded locality for it is Penang.

Suasa, de Nicév.

Suasa liris.

Sithon liris, Staud. Iris, ii. p. 110, pl. i. fig. 10, ♂ (1889).

Kina Balu (*Waterstr.*).

The Borneau specimens have the apex and outer margin of the fore wing below a much duller shade of yellow than the type from Palawan, otherwise they agree well. The female, like that of *S. lisides*, Hew., is without the black subbasal spot on the hind wing.

Thamala, Moore.

Thamala marciana.

Myrina marciana, Hew. Ill. Diurn. Lep., *Lyc.* p. 34, pl. xvi. fig. 44 ♂, pl. xii. figs. 12, 13 ♀ (1863).

Thamala marciana, de Nicév. Butt. Ind. etc. vol. iii. p. 388 (1890).

Sarawak (*Hew.*); S.E. Borneo (*Doherty, vide de Nicév.*).

Hypolycæna, Feld.

Hypolycæna erylus.

Polyommatus erylus, Godt. Enc. Méth. vol. ix. p. 633 (1823).

Hypolycæna erylus, Druce, P. Z. S. 1873, p. 351.

Trusan, N. Borneo (*Everett*); Labuan (*Low* and *Waterstr.*).

Bornean specimens of this species usually have the apices and outer margins of the wings below thickly dusted with russet-brown.

Hypolycæna thecloides.

Myrina thecloides, Feld. Wien. ent. Monatsch. vol. iv. p. 395 (1860).

Hypolycæna thecloides, Druce, P. Z. S. 1873, p. 351.

Labuan (*Low* and *Waterstr.*).

Bornean specimens before me differ from Burmese by having slightly more yellow on the upperside of hind wing.

HYPOLYCÆNA SKAPANE, sp. n. (Plate XXXIII. figs. 16 ♂, 17 ♀.)

♂. Upperside dull brownish purple; apex of fore wing and costal margin of hind wing rather broadly brown; outer margin of fore wing narrowly brown. Anal fold greyish brown; a black spot on the lobe outwardly bordered with white. Cilia brown except in anal region, where it is white. Tails black, bordered with white. Underside pearly grey, coloured and marked much like *Z. etolus*, Fab., but without the black spot on the costal margin of the hind wing and with the band of the fore wing straighter, narrower, and more distinctly outer-edged with whitish, whilst on the hind wing the band, which in *Z. etolus* becomes linear and black towards the anal margin, is in this species yellow, of about equal width, and narrowly edged on both sides with black. The large black spot on the outer margin of hind wing between the first and second median nervules is bordered with orange on its inner and lower edges.

♀. Upperside uniform blackish; anal angular area rather broadly white, containing a series of four marginal black spots, alternately large and small, the first, in the lobe, being large. Underside as male, but brighter.

A tuft of the cilia in both sexes is considerably elongated at the extreme anal angle, thus giving the insect the appearance of having a third, but very short tail.

Expanse, ♂ $1\frac{1}{5}$, ♀ $1\frac{1}{10}$ inch.

Kina Balu (*Waterstr.*). Types Mus. Staud.

I have compared this species to *Z. etolus* on the underside, but it is perhaps more like *H. thecloides* on that surface, but very different above. It is much smaller than the average *H. erylus*. It is also not unlike the *Chliaria merguia* as figured by Mr. Doherty[1], but on the upperside the blue is much darker and not distinctly defined in the fore wing, and on the underside the band of the fore wing is straighter and the black spot between the median nervules is larger and also edged with orange; this is not shown in Mr. Doherty's figure, although he describes it as being present.

HYPOLYCÆNA PHEMIS, sp. n. (Plate XXXIII. fig. 18 ♂.)

♂. Upperside rather dull slaty blue, but in some lights rich light purple-blue, much the colour of the darker blue on *Chliaria kina*, Hew., darkest in the fore wing. Costal apex and outer margin of fore wing and costal margin of hind wing blackish. Anal fold greyish white. A black spot in the lobe and two indistinctly defined marginal spots above it. Tails black with white borders; cilia as usual. Underside differs from *Z. etolus*, Fabr., only by the yellow apices being less extensive and much browner, by the black spot on the costa of the hind wing being replaced by a minute yellowish spot, by the double markings closing the cells being very inconspicuous, and by the band on the hind wing continuing wide where it is angled and broken towards the

[1] *Chliaria merguia*, Doherty, J. A. S. B. lviii. p. 427, pl. xxiii. fig. 2 (1889).

anal margin, not becoming linear as in *Z. etolus*. There are no metallic scales at the anal angle.

♀. Upperside much like that sex of *H. skapane*, mihi, with the white area larger. Underside as male. The male has a small blackish, inconspicuous, " sexual mark " on the fore wing, placed on the median nervules at their origin, whilst the hind wings of both sexes appear to be more produced anally than either of the other species of the genus.

Expanse, ♂ ♀, $1\frac{1}{5}$ inch.

Kina Balu (*Waterstr.*). Types Mus. Staud.

The thorax and abdomen in the male, when the insect is held at an angle, appear even more brilliant than the wings. *H. phemis* is not unlike the West-African *H. hatita* [1], Hew., on the upperside, but the tails are shorter.

Chliaria, Moore.

Chliaria mimima, sp. n. (Plate XXXIV. fig. 1 ♂.)

♂ ♀. Allied to *C. othona*, Hew. Upperside differs from that species by the blue being of a paler and greyer shade and reduced to a patch below the median nervure in the fore wing. The underside differs from that of *C. othona* by the costa, apex, and outer margin of the fore wing being suffused with orange, by the discal bands in both wings being straighter, less broken, and of equal width their whole length. The black spot on costa of the fore wing and also the two on the costa of the hind wing are present but smaller.

Expanse, ♂ 1, ♀ $1\frac{1}{5}$ inch.

Kina Balu and Labuan (*Waterstr.*).

Distinguished at once by the different underside. The types are in Dr. Staudinger's collection. We also possess this species from N.E. Sumatra, but on the upperside the blue extends over the cell in the fore wing.

Zeltus, de Nicév.

Zeltus etolus.

Papilio etolus, Fab. Mant. Ins. ii. p. 66 (1787).

Hypolycæna etolus, Druce, P. Z. S. 1873, p. 351.

Kina Balu (*Waterstr.*); Labuan (*Low*).

In all the specimens I have seen the apices of the wings below are much suffused with rich reddish brown. It is a common insect at Labuan.

Pseudomyrina, gen. nov.

Allied to *Tajuria*, Moore. Fore wing more arched; the apex more rounded, and the inner margin distinctly convex. Venation much the same, but the cell of the fore wing distinctly shorter and broader. Hind wing with a large oval glandular patch near the

[1] *H. hatita*, Hew. Ill. Diurn. Lep., *Lyc.* p. 51, pl. xxiii. figs. 21–24 (1865).

base, partly resting on the subcostal nervure and extending upwards to the costal nervure, and lying over that is a tuft of long hairs, which are attached to the membrane of the wing below the glandular patch and the subcostal nervure.

The female possesses the same number of subcostal nervules as the male.

The tail on the submedian nervure is rather long and broad, whilst that on the first median nervule is short and thread-like.

Type, *Myrina martina*, Hew.

This is I believe the first genus described amongst the *Lycænidæ* in which the male possesses both the glandular patch and the tuft of hairs on the hind wing, and these characters serve at once to distinguish it from all others.

Hewitson in describing his *Myrina martina* noted its peculiarities, but no writer has since referred to them. I have compared it with *Tajuria*, but probably it is more nearly allied to *Neocheritra*, Distant, which differs by possessing an additional subcostal nervule in the fore wing (in the male) and a tuft of hairs on fore wing below.

In pattern and coloration *Neocheritra* and *Pseudomyrina* are much alike.

PSEUDOMYRINA MARTINA.

Myrina martina, Hew. Ill. Diurn. Lep., *Lyc.* Suppl. p. 3, t. 2. figs. 70, 71 (1869).

Sithon martina, Druce, P. Z. S. 1873, p. 351.

♀. Upperside brown, with white markings at the anal angle. Much like that sex of *Neocheritra theodora* (see p. 608), but with the tails considerably shorter. Underside as male.

Kina Balu (*Waterstr.*); Labuan (*Low* and *Waterstr.*).

On the underside this species closely resembles *Neocheritra amrita*, Feld., and *N. theodora*, mihi, but can be distinguished by the brown bar over the spots at the anal angle becoming broader and straighter as it reaches the inner margin, which is not so in the species mentioned [1].

VIRGARINA, gen. nov.

Allied to *Pseudomyrina*. With three branches to the subcostal nervure of the fore wing as in that genus, the third, however, being emitted sooner and consequently longer. Upperside of fore wing with a large elongate-oval glandular patch below the median nervure, placed obliquely across the wing and divided

[1] Messrs. Godman and Salvin's collection contains male specimens of *P. hypoleuca*, Hew., from Malang and Lawang—both in Java—which on examination prove to belong to *Pseudomyrina*. They possess tails of about the same length as *P. martina*, but rather slighter; that on the submedian nervure being white, that on the first median nervule black with white tip, and white fringe. Dr. Staudinger has sent specimens of *P. hypoleuca* from Java under the name "*mamerta*," Staud., but I do not know where he has described it. He has also sent me for examination the type female of his *Sithon paluana*, which I find is identical with the female of *C. martina*, Hew.

down the middle and having much the appearance of a grain of wheat inverted; at the upper (basal) end of this patch is, attached to the membrane of the wing, a tuft of long pale brown hairs which can apparently stand erect, lie flat over the patch, or be so enclosed by the two halves of the patch as to be visible only at the base. The submedian nervure is much affected by the patch and is bent towards the inner margin where it passes it.

Type, *Sithon scopula*, Druce.

This remarkable genus is, so far as I can ascertain, monotypic, and with *Thrix*, Doherty [1], presents the peculiarity of having the glandular patch as well as the tuft of hairs on the fore wing on the upperside. The scaly patch is very curious and causes a considerable erection on the underside. It seems possible that the insect has the power of sheathing the long tuft of hairs, at any rate I have before me specimens which show it individually in the three positions described above. I notice also that all around the patch the scales are rubbed away as if from the continued friction caused by the whisking of these hairs. It is a very interesting insect, and when some one is able to observe it in nature we shall doubtless learn more of its peculiarities.

VIRGARINA SCOPULA.

Sithon scopula, Druce, P. Z. S. 1873, p. 353, pl. xxxiii. fig. 2.

♂. Upperside—fore wing rich purplish brown, with all the margins lighter, the outer margin being more broadly so. Hind wing: upper half, including apex, dark brown; lower half light cærulean blue, sprinkled with whitish towards the anal angle. A series of three indistinct whitish spots in the interspaces, two between the median nervules and one between the submedian nervure and the 1st median nervule, and crowning these whitish spots are three indistinct small patches of scattered black scales. Lobe but slightly developed, white, with a marginal black spot on its upper edge. Cilia of fore wing brown; of hind wing brown, down to the edge of the blue, when it becomes pure white and is so continued to the anal angle; tails pure white. Underside yellowish buff-colour, corresponding with the brown of the upperside on both wings; lower half of hind wing white, with a somewhat irregular brown band composed of confluent lunules placed about halfway between the middle of the wing and the margin. A series of four distinct black spots towards the anal angle, situated as follows: the first, and smallest, close to the margin between the median nervure and the second median nervule; the second, large, between the first and second median nervules; the third intermediate in size between these two, placed much farther from the margin and consequently out of line, and in that respect corresponding with the portion of the brown band which is immediately over it; the fourth spot, which is small, is placed on the margin over the lobe and is in line with the first two. There

[1] *Thrix*, J. A. S. B. vol. lx. pt. 2, p. 35 (1891), described as having four subcostal nervules to fore wing.

are indications of brownish marks close to the margin between the nervules beyond the spots. There is an anteciliary black line to that part of the hind wing which is white, and beyond a white cilium. The cilia of fore wing and remaining portion of hind wing concolorous with wings.

♀. Upperside much like that sex of *P. martina*, Hew., but the white anal area of hind wing more extensive, with the black spots more inclined to be separated and the nervules crossing the white area white, not brown as in that species. Underside as male, but the yellow of a much brighter shade and the black markings on hind wing inclined to be larger and more distinct.

Kina Balu (*Waterstr.*); Labuan (*Low* and *Waterstr.*); Sandakan (*Elwes*).

In the figure given of this species (P. Z. S. 1873) the tuft of hairs appears to lie along the median nervure from the base. This is incorrect, as it does not originate near the base but just over the glandular patch. The female can be distinguished from that sex of *P. martina* by the inner black band on hind wing being (as in the male) placed farther from the margin than in that species.

V. scopula varies much in size, one male measuring $1\frac{3}{10}$ inch, whilst another expands $1\frac{7}{10}$ inch.

The female has three subcostal nervules as in the male.

Neocheritra, Distant.

Neocheritra amrita.

Myrina amrita, Feld. Wien. ent. Monatsch. vol. iv. p. 395 (1860).

Labuan (*Low* and *Wahnes*); S.E. Borneo, near Banjarmasin (*Wahnes*).

Var. theodora.

Neocheritra theodora, H. H. Druce, Ent. Mo. Mag. vol. xxii. p. 155 (1885).

Elopura (*Pryer*).

Differs from the typical form by the blue on the upperside being rather more extensive and of a paler, greenish shade, but on the underside cannot be separated.

I have examined the specimen from Singapore figured by Mr. Distant[1] as the female of *N. amrita* and find that it is that sex of *Jacoona anasuja*, Feld., the black streak at the base of the costal nervure being distinctly present, although it has apparently escaped the notice of both its describer and his artist.

Neocheritra teunga.

Sithon teunga, Grose Smith, Ann. & Mag. Nat. Hist. ser. 6, vol. iii. p. 317 (1889).

Kina Balu (*Whitehead*).

I have not seen this species, which appears to be very distinct.

[1] *Neocheritra amrita*, Dist. Rhop. Malay. p. 252, pl. xx. fig. 15 (1885).

Mr. de Nicéville supposes it to belong to this genus (J. A. S. B. vol. lxiii. pt. ii. no. 1, p. 43, 1894).

JACOONA, Distant.

JACOONA JUSANA, sp. n. (Plate XXXIV. fig. 3 ♂.)

♂. Allied to *J. anasuja*, Feld. Upperside—fore wing: outer margin convex, and with the blue fascia which is beyond the cell large and semicircular, extending from the costal margin across the wing down to the first median nervule and almost reaching the outer margin; the inner marginal blue area is also much more extensive, and reaches nearly to the anal angle. Hind wing with the blue area also much more extensive; the black marginal spot between the first and second median nervules much smaller; a distinct black line along the centre of the tail (not always present), and with the apex considerably more produced. Underside ochraceous hoary, but without the rufescent brownish; the outer margins as in *J. anasuja*, and with the third spot of the inner series and the corresponding spot of the outer series small and straight; a prominent black streak at the base of the costal nervure in the fore wing.

♀ much like that sex of *N. amrita*, Feld. Upperside white; anal area more extensive, and the black spots more inclined to separate. Underside as ♂, but yellowish ochraceous.

Expanse, ♂ $1\frac{4}{5}$, ♀ $2\frac{1}{5}$ inches.

Sandakan (*Mus. Druce*); Labuan (*Waterstr.*, *Mus. Staud.*).

Messrs. Godman and Salvin possess a male *J. anasuja*, Feld., from Sumatra (*Sachs*), also a female from Singapore.

The females in this genus have the same number of subcostal nervules in the fore wing as the males, but the first branch is entirely separate from the costal nervure. They closely resemble those of *N. amrita*, with which species they have doubtless often been confounded, and like that species possess a tail on the lower median nervule (which is, however, shorter); but they can be at once distinguished from that species by the presence on the underside of the prominent black basal streak in the fore wing.

JACOONA METASUJA, sp. n. (Plate XXXIV. fig. 4 ♂.)

Iolaus metasuja, Staud. MS.

♂. Allied to *J. jusana*, paler and brighter blue with greenish reflections; the band on the fore wing, beyond the cell, much narrower and shorter, and the blue basal area shorter. Underside as in *J. jusana*.

♀. Upperside differs from ♀ *jusana* by the white anal area being more extensive and the black spots entirely separated. Underside as ♂.

Expanse, ♂ $1\frac{9}{10}$, ♀ 2 inches.

Kina Balu (*Waterstr.*). Types Mus. Staud.

The greenish reflections and the narrow blue apical band give *J. metasuja* a very distinct appearance. The females of the three

described species are much alike, but in the examples before me do not show any variation. Dr. Staudinger has received a considerable number of female *metasuja* from Kina Balu.

Cheritra, Moore.

Cheritra freja, var. ochracea, nov.

Hesperia freja, Fab. Ent. Syst. iii. p. 263 (1793).

Sithon freja, Druce, P. Z. S. 1873, p. 351.

Cheritra freja, Distant & Pryer, Ann. & Mag. Nat. Hist. ser. 5, vol. xix. p. 269 (1887).

Differs from the Continental Indian form by the whole of the fore wing as well as the costal half of the hind wing below being ochraceous, and by the inner black band towards the anal angle being much broader and less broken.

Sandakan (*Pryer*); Labuan (*Low* and *Waterstr.*); Sarawak, S.E. Borneo.

This apparently is the usual Bornean form of the species, as in a large number of specimens before me there is no variation. Mr. Distant's figure [1] of *C. freja* shows a form intermediate between the Indian and Bornean representatives.

Cheritra pallida.

Sithon pallida, Druce, P. Z. S. 1873, p. 352, pl. xxxiii. fig. 3.

Sithon pallida, Distant & Pryer, Ann. & Mag. Nat. Hist. ser. 5, vol. xix. p. 268 (1887).

Sandakan (*Pryer*); Labuan (*Low*).

I have examined the type of this species and find that it is nearly allied to *C. freja* var. *ochracea*, the tails on the first median nervule being broken off. It agrees in neuration exactly with that species. On the upperside it can be distinguished by its rich purple colour in all lights, and by the distinct and even black margins. On the underside it differs from *C. freja* var. *ochracea* only by the black markings being more extensive and by the inner black band being situated higher up the wing. The metallic blue line is placed on the black, not above it as stated in the original description, and the black spot in the submedian interspace, which in *C. freja* and in var. *ochracea* is nearly obsolete, is in *C. pallida* large and distinct.

The type specimen, now in Messrs. Godman and Salvin's collection, is the only specimen I have seen.

It is, I believe, a perfectly good and distinct species.

Ritra, de Nicév.

Butt. India etc. iii. p. 411 (1890).

Ritra aurea.

Sithon aurea, Druce, P. Z. S. 1873, p. 352, pl. xxxiii. fig. 1.

Ritra aurea, de Nicév. Butt. India etc. iii. p. 411 (1890).

[1] Rhop. Malay. pl. xx. fig. 10 (1885).

♀. Upperside—fore wing dark brown, with the disc thickly dusted with cupreous-orange scales: hind wing dark brown, crossed below the middle by a band composed of white crescent-shaped lunules divided by the brown veins; beyond this two large brown spots which crown two rather large white spots; an anteciliary brown line: tails more slender than in ♂, with brownish central lines. Underside as in ♂, but paler.

Labuan (*Low* and *Waterstr.*).

Both sexes are contained in Messrs. Godman and Salvin's collection, including the type. The extent of cupreous orange on the upperside varies considerably in the female, as in one specimen sent by Dr. Staudinger the apex and outer margin of the fore wing only are brown.

HORAGA, Moore.

HORAGA CORNICULUM, sp. n. (Plate XXXIV. fig. 8 ♂.)

♂. Closely allied to *H. holothura*, Swinhoe, from which it differs on the upperside by the blue colour being of a paler and duller shade and not extending beyond the discal spot except below the first median nervule. The white discal spot is smaller and sharply bordered by the lower median nervule, not continued below it as in *H. holothura*. Underside—ground-colour rather paler than in *H. holothura*, but the white discal band, which commences on the subcostal nervure, narrower and pointed in the fore wing and of about equal width in the hind wing. Thorax and abdomen bluish above, whitish below. Legs white, with black spots.

Expanse $1\frac{3}{10}$ inch.

Kina Balu (*Waterstr.*). Type Mus. Staud.

The black spots and metallic markings towards the anal angle below are arranged as in *H. holothura*, Swinhoe, from Java, in which, judging from four specimens before me, I can detect no variation.

HORAGA AFFINIS, sp. n. (Plate XXXIV. fig. 9 ♂.)

Sithon affinis, Stgr. MS.

♂. Allied to *H. corniculum*, but the blue colour darker in shade and less extensive in the fore wing. The white discal spot is very small indeed, and is divided by the two brown median nervules just at their origin. Underside much like that of *H. corniculum*, but darker and the discal bands rather narrower. Thorax and abdomen bluish above, yellowish beneath. Legs white, with black spots.

Expanse $1\frac{2}{5}$ inch.

Kina Balu and Labuan (*Waterstr.*).

The type specimen from Labuan is in Dr. Staudinger's collection. The example from Kina Balu has the lower half of the white discal spot on the fore wing above rather larger than the type, and the blue area is rather paler; on the underside it is the same.

H. affinis and *H. corniculum* both possess the oval ochreous patch on the underside of the fore wing near the middle of the submedian nervure.

HORAGA MÆNALA.

Myrina mœnala, Hew. Ill. Diurn. Lep., *Lyc.* (Supp.) p. 7, pl. iii. figs. 85, 86 (1869).

Borneo (*Hew.*).

This insect is known to me only by Hewitson's type in the British Museum. It is, I believe, the only species of the group without a white discal spot on the fore wing above.

CATAPŒCILMA, Butler.

CATAPŒCILMA ELEGANS.

Hypochrysops elegans, Druce, P. Z. S. 1873, p. 351, pl. xxxii. fig. 12.

Catapœcilma elegans, Distant & Pryer, Ann. & Mag. Nat. Hist. ser. 5, vol. xix. p. 267 (1887).

Labuan (*Low* and *Waterstr.*); Sandakan (*Pryer*).

The two Bornean specimens (females) before me differ from Sikkim examples by the central band on the fore wing below being straight, not Y-shaped, as appears to be invariably the case in Indian specimens, also in those from Ceylon, and again from Sumatra. On such slight material I do not propose to admit at present that the Indian representatives belong to a distinct species (they are certainly not typical), but in the event of their requiring a name I would suggest *major*.

The type is in Messrs. Godman and Salvin's Collection, and is in rather bad condition.

The figure given in the P. Z. S. 1873, pl. xxxii. fig. 12, is a very poor one, but suffices to show that the band on the fore wing is straight. Since the above was written Dr. Staudinger has sent me a male from Labuan which differs from Sikkim males by being entirely without the black outer margins to both wings on the upperside.

SEMANGA, Distant.

(*Keraunogramma*, Röber.)

SEMANGA SUPERBA.

Ilerda? superba, Druce, P. Z. S. 1873, p. 350, pl. xxxii. fig. 11, ♀.

♂. Upperside dark shining purple with brown borders; fore wing with a large central patch of darker, differently-placed scales; hind wing with an orange patch divided by the brown nervules as in the ♀. Underside as ♀.

Hind wing with two tails only, viz., a short one on the lower median nervule and a rather long one on the submedian nervure.

Labuan (*Low* and *Waterstr.*).

The male described above is from Dr. Staudinger's collection, and has the same number of subcostal nervules in the fore wing as the female, but has two tails only in place of three. The type (a female) is now in Messrs. Godman and Salvin's collection, but is somewhat mutilated, having lost its head and fore legs. The figure given in the P. Z. S. is a fairly good one, excepting that the median line on the fore wing is too distinct.

K. (=*S.*) *helena*, Röber, Iris, i. pt. 3, p. 198, pl. ix. fig. 6, is a closely allied species (if, indeed, it is distinct), which appears to have the purple colour rather less extensive on both wings.

Biduanda, Distant.

Below will be found described two remarkably interesting new species of this genus, viz. *B. similis* and *B. imitata*, both of which agree exactly in venation with the type of the genus, *B. thesmia*, Hew., and possess three subcostal nervules to the fore wing. They are remarkable in both being identical in other respects with two well-known species of the genus *Marmessus* [1], Hübn.,—*B. similis* being like *M. moorei*, Distant, whilst *B. imitata* is again the facsimile of *M. boisduvalii*, Moore. Boisduval (Spec. Génér. i. pl. 22) figures both *M. lisias*, Fab. (=*M. boisduvalii*, Moore), and *M. ravindra*, Horsf., with three subcostal nervules to the fore wing; but as these drawings are obviously incorrect—the costal nervure appearing to be given off from the subcostal nervure—I do not think any reliance can be placed upon them, at any rate *M. ravindra* and *M. boisduvalii*, as we now know them, have not this third subcostal nervule.

Biduanda thesmia.

Myrina thesmia, Hew. Ill. Diurn. Lep., *Lyc.* p. 32, pl. xiv. figs. 25–27 (1863).

Labuan (*Low*); Sarawak (*Wallace*, *Wahnes*).

Messrs. Godman and Salvin's collection contains two female specimens, which agree with Hewitson's type and also with a Sumatrau female. Wahnes has also sent it to Dr. Staudinger from Labuan.

Var. unicolor.

Sithon thesmia, var. *unicolor*, Staud. Iris, ii. p. 111 (1889).

Labuan (*Low*); Sandakan (*Pryer*); Elopura (*Pryer*); Kudat (*Mus. Druce*); Kina Balu (*Waterstr.*).

This appears to be the common form in Borneo and agrees exactly with Dr. Staudinger's type from Palawan. Some females are entirely without the white scales at the anal angle of the hind wings.

It is distinguished from the typical form by the underside being dull reddish brown in place of rufous orange.

[1] Mr. de Nicéville states that this name should be used in place of *Drupadia* Moore.

It also occurs in N.E. Sumatra.

Some males have a large orange spot on the disc, others a small one, and others again are without any.

BIDUANDA ESTELLA, var.

Sithon estella, Hew. Ill. Diurn. Lep., *Lyc.* p. 31, pl. xvi. figs. 50, 51 (1863).

Kina Balu Mts. (*Waterstr.*).

Dr. Staudinger has sent me a pair (♂ ♀) which agree well with Hewitson's types from Sumatra, but are somewhat larger. It is distinguished at once from *B. thesmia* by the broken band on the fore wing below. The specimens referred to *Sithon estella* by Mr. Herbert Druce (P. Z. S. 1873, p. 352) are *B. unicolor* described above.

BIDUANDA THÆNIA, sp. n. (Plate XXXIV. fig. 2 ♀.)

♀. Upperside dull brown; fore wing crossed about the middle with an oblique, whitish, indistinctly bordered band reaching from the subcostal nervure, where it is narrowest, nearly to the submedian nervure. Hind wing narrowly whitish along the costal margin; three blackish spots at the anal angle between the tails. Underside white, with spots and markings arranged as in Hewitson's figure of *B. theda*; but the spots in the cell of the fore wing are reduced to mere dots, and the markings on the hind wing are linear excepting those near the base.

Expanse $1\frac{1}{5}$ inch.

Sandakan (*Pryer*). Mus. G. & S.

The type specimen is unique. When the male is found it will probably be much like that sex of *B. theda*, Hew., and *B. thesmia*, Hew. It can be distinguished from *B. theda* by the linear markings on the hind wings below, and the much less distinct whitish band on the fore wing above.

BIDUANDA CINESIA.

Myrina cinesia, Hew. Ill. Diurn. Lep., *Lyc.* p. 29, pl. xiii. figs. 18, 19 (1863).

♀. Upperside dull blackish brown; fore wing slightly tinged with cupreous towards the centre; hind wing darker towards anal angle, and with a broad, distinct, waving white band not crossed by dark nervules, margin dusted with white between the tails. Tails equal in length to those of male. Underside as in male.

Expanse $1\frac{3}{5}$ inch. (Hew. fig. ♂ $1\frac{7}{10}$ inch.)

Sarawak (*Hew.*); Elopura (*Pryer*); Kina Balu (*Waterstr.*).

Hewitson's figure of the female undoubtedly represents another species, as, besides being smaller and having the central tail considerably longer than in *B. cinesia*, it presents other differences which I have described below.

Mr. Pryer took this species in March.

Dr. Standinger has received both sexes from Kina Balu, the

female having the white band slightly wider than the typical form.

Biduanda cineas.

Sithon cineas, Grose Smith, Ann. & Mag. Nat. Hist. ser. 6, vol. iii. p. 318 (1889).

Kina Balu (*Whitehead*).

Mr. Grose Smith states that this species is nearest to *S. cinesia*, Hew., and *S. maneia*, Hew. The type is in Mr. Whitehead's collection. I have not seen a specimen, but it would appear to be quite distinct. *S. cineas*, Hew., and *S. maneia*, Hew., are, however, not allied to each other.

Biduanda hewitsonii, sp. n.

Myrina cinesia, ♀, Hew. Ill. Diurn. Lep., *Lyc.* p. 29, pl. xii. fig. 20 (1863).

♀. Allied to *B. cinesia* but smaller; upperside with the white band rather narrower and divided by brown nervules. Underside ochreous yellow, darker and richer in colour, the inner black band on the hind wing narrower and not so much waved; the outer black band also is straighter and is without the distinct black tooth which is so conspicuous in *B. cinesia*. Middle tail considerably longer.

Expanse $1\frac{1}{10}$ inch.

Elopura (*Pryer*) (*Mus. Druce*); Labuan (*Waterstr.*).

The specimen described above was taken by Mr. Pryer in March and agrees exactly with Hewitson's figure, no. 20, plate xii., which, now that we have the correct female of his *B. cinesia*, requires a name.

B. hewitsonii should be easily distinguished from *B. cinesia* on the upperside by the white band on the hind wing being crossed by brown nervules.

The male is unknown.

Dr. Staudinger has sent me two females, and Mr. H. Grose Smith possesses one specimen, also a female.

Biduanda staudingeri, sp. n. (Plate XXXIV. figs. 5 ♂, 6 ♀.)

♂. Upperside—fore wing dark purplish blue, outer margin narrowly and evenly black, costal margin very narrowly black; cilia black. Hind wing dark purplish blue, costal and outer margin down to third median nervule narrowly and evenly black; anal third, including tails, cream-white, with a black band beyond its middle divided by the nervules, extending from the second median nervule at the point at which the wing is dentated to the lobe, the inner edge of the white area being sinuous; cilia along costal margin and apex pale yellowish, rest of wing white. Costal fold bluish grey. Underside pale brown, darker towards apex and outer margin of fore wing, palest towards anal angle of hind wing; a faint wavy dark line in fore wing beyond the middle, commencing

near the costa and becoming more distinct towards the submedian nervure, on which it broadens into an irregular spot. Hind wing with a similar faint wavy line beyond the middle, starting on the costa and running nearly straight to the second median nervule, where it turns at right angles, and becoming suddenly darker and thicker reaches almost to the anal margin just before the extremity of the abdomen; a large black spot on the lobe crowned with metallic green; a black mark between the submedian nervure and another joining it between the two lower median nervules, both covered with metallic green scales; a thin black marginal line above the lobe, running into the dark band, also dusted with metallic green; dark anteciliary lines towards the anal angle. Cilia of fore wing dark brown, of hind wing pale brown at apex, nearly white towards anal angle. Tails on both surfaces unmarked. Head, thorax, abdomen, and legs concolorous with wings; tarsi black-spotted.

♀. Differs from the male only by upperside being rich dark brown in place of purplish blue, and the anal region pure white in place of cream-white. Underside as male, but the pale brown replaced by rich ochreous brown.

Expanse, ♂ $1\frac{1}{10}$, ♀ $1\frac{3}{5}$ inch.

Kina Balu (*Waterstr.*).

I have named this fine species after Dr. Staudinger, whose kindness and generosity have enabled me to describe and figure it here. The types are in his collection. It is not a little remarkable in that both sexes are nearly alike on the upperside, the female only differing from the male by being brown in place of blue. The third (upper) tail is very slightly developed in the male, but is well marked in the female. *B. staudingeri* is not closely allied to any other species.

Biduanda similis, sp. n.

♂. Upperside—fore wing dark rich brown; hind wing shining cærulean blue, with brown apex and costal margin, two black spots near anal angle; cilia of fore wing brown, of hind wing white. Underside—fore wing reddish orange with brown markings; hind wing white, with dark brown markings and bands, reddish along the costal margin and dusted with shining silvery green scales towards the anal angle. Outer margin of fore wing more convex, about equal to that of *M. moorei* ♀.

Expanse $1\frac{7}{10}$ inch.

Borneo. Type Mus. Druce.

This butterfly differs from the common *Marmessus moorei*, Distant, with which it occurs, only by the presence of an additional subcostal nervule, and by the outer margin being more convex. The type specimen, so far as I know, is unique, as after examining a large series of *M. moorei* I have failed to find another example. This specimen, together with the type of *B. imitata*, mihi, next described, was formerly in the Rev. R. P. Murray's collection, but unfortunately the precise locality in Borneo is not noted.

Biduanda imitata, sp. n.

♀. Upperside much like *M. boisduvalii*, Moore, ♀, differing only from that species by the greyish-blue scales towards the anal angle of the hind wing being more extensive. Underside—ground-colour of fore wing pale yellow, whitish at the base and with a broad pale brown apex; a short dark brown streak near the base, a circular dark brown spot ringed with white between the base and a broad brown band which crosses the middle of the cell; a short pale band closing the end of the cell, with a separated spot over it close to the costal margin, beyond this a dusky, dark-bordered, rather broad band from the second subcostal nervule to the submedian nervure, broken on the third median nervule and palest in median interspaces, and halfway between this and the outer margin a dusky line divided by the nervules. Hind wing with markings and spots arranged as in *M. boisduvalii*, but all of a dark brown colour and with the apex very faintly pale yellowish.

Expanse 1½ inch.

Borneo. Type Mus. Druce.

B. imitata is remarkable for its close resemblance to *M. boisduvalii*, but we have no knowledge of that species occurring in Borneo.

Marmessus, Hübn.

(*Drupadia*, Moore.)

Marmessus moorei.

Sithon moorei, Dist. Ann. & Mag. Nat. Hist. ser. 5, vol. x. p. 246 (1882); Rhop. Malay. p. 236, pl. xx. figs. 21, 29, 30 (1886).

Sithon ravindra, Druce (nec Horsf.), P. Z. S. 1873, p. 351.

Kina Balu (*Waterstr.*); Elopura (*Pryer*); Labuan (*Low* and *Waterstr.*); Daat Island (*Distant*); Trusan and Lawas (*Everett*).

This is a common insect at Labuan, and Mr. Low's collections contained a large number of specimens.

Marmessus surindra, sp. n. (Plate XXXIV. fig. 7 ♂.)

♂. Closely allied to *M. ravindra*, Horsf., from which it differs on the upperside by the blue on the hind wing, which is of a deeper shade, extending to the apex and close along the subcostal nervure to the glandular patch; and on the underside by the band beyond the cell in the fore wing being linear its entire length, not widening out at the end of the cell as in that species.

Var. albula, nov.

♂. Differs on the underside by the ground of the fore wing being pure white, with the apex and outer margin fuscous ochreous, and the black markings on both wings smaller.

♀. Upperside dark brown, bluish grey towards anal angle. Underside as male.

Kina Balu (*Waterstr.*); Sandakan (*Pryer*); S.E. Borneo (*Wahnes*). Mus. G. & S., Staud., and Druce.

M. surindra may prove to be a seasonal form of *M. moorei*, but at present we have no evidence in that respect. The var. *albula* appears to be as common as the typical form at Sandakan, whence all the specimens I have examined have come. Messrs. Godman and Salvin possess a male and female from Palawan, which agree with var. *albula*. Dr. Staudinger has sent me the types of his *S. ravindrina*, ♂ ♀ ; these agree with *S. surindra*, but on the underside the fore wings are bright ochreous yellow.

Messrs. Distant and Pryer record *D.* (=*M.*) *ravindra*, Horsfield, from Sandakan, but as the specimens represent *M. surindra* I have not included the species in my list.

Eooxylides, de Nicév.

Eooxylides tharis.

Oxylides tharis, Hübn. Zutr. exot. Schmett. figs. 883, 884 (1837).

Sithon tharis, Druce, P. Z. S. 1873, p. 351.

Hypolycæna tharis, Distant & Pryer, Ann. & Mag. Nat. Hist. ser. 5, vol. xix. p. 268 (1887).

Kina Balu (*Everett* and *Waterstr.*); Trusan (*Everett*); Labuan (*Low*); Sarawak (*Staud.*); Sandakan.

Bornean specimens of this insect show scarcely any (and in some examples no) trace of the blue scales along the inner margin of the fore wing above, in the male, which character seems best developed in specimens from Nias Island, which possess it in a marked degree—in one example in our collection it extends from the margin to the middle of the cell [1].

Eooxylides etias.

Hypolycæna etias, Distant & Pryer, Ann. & Mag. Nat. Hist. ser. 5, vol. xix. p. 268 (1887).

Sandakan (*Pryer*).

I have not seen this species, and have placed it in this genus judging from the description and the remark that it is allied to *H.* (= *E.*) *tharis*. It appears to have a more extensive white area on the hind wing above than that species.

Loxura, Horsf.

Loxura atymnus.

Papilio atymnus, Cr. Pap. Exot. vol. iv. p. 82, pl. cccxxxi. figs. D, E (1780).

Myrina alymnus, Druce, P. Z. S. 1873, p. 353.

Loxura cassiopea, Distant & Pryer, Ann. & Mag. Nat. Hist. ser. 5, vol. xix. p. 269 (1887).

[1] *Myrina meduana*, Hew., which has been referred to *Eooxylides* by Herr Semper (Reise Phil. Ins.), has the glandular patch in the male oblong and placed at the end of the cell. The neuration, however, appears to be much the same.

Labuan (*Low* and *Waterstr.*); Sandakan (*Pryer*).

All Labuan specimens I have examined are dark in colour, even darker than the S. Indian form named *L. surya* by Mr. Moore.

Drina, de Nicév.

Drina ninoda, sp. n.

♂. Allied to *D. donina*, Hew., but larger and with a distinct white spot close to outer angle of fore wing in the submedian interspace, and two dull brownish-green pale patches—one, an elongate oval, between the first and second median nervules; the other placed below it in the submedian interspace, square. Underside: bands broader and more distinct, notably that one which crosses the fore wing beyond the cell, which is also straighter.

Expanse $2\frac{2}{5}$ inches.

Labuan (*Low*). Type Mus. G. & S. Sandakan (*Elwes*).

Although closely allied to *D. donina*, the additional patches and spot described above are sufficient to distinguish it. I have examined a number of *D. donina* from Burmah, but find no traces of these patches in any of them.

Drina maneia.

Myrina maneia, Hew. Ill. Diurn. Lep., *Lyc.* p. 29, pl. xii. figs. 14, 15 (1863).

Sithon maneia, Druce, P. Z. S. 1873, p. 351.

Labuan (*Low* and *Waterstr.*).

Messrs. Godman and Salvin's collection contains two males of this species, one of which agrees with Hewitson's figure, with the addition of the brown lines and nervules as described by Mr. Doherty in a specimen from Perak (J. A. S. B. vol. lx. pl. 2. no. 1, p. 34, 1891); the other, which is somewhat larger, has a much narrower brown outer margin to the fore wing, and is without the brown lines and nervules. Dr. Staudinger has sent me the female.

Araotes, Doherty[1].

Araotes lapithis.

Myrina lapithis, Moore, Horsf. & Moore, Cat. Lep. Mus. E. I. C. vol. i. p. 48 (1857).

Sithon lapithis, Druce, P. Z. S. 1873, p. 351.

Labuan (*Low* and *Wahnes*); S.E. Borneo, near Banjarmasin (*Wahnes*).

The width of the white band on the fore wing below varies somewhat. It is a common species—the male apparently being most seldom met with, as out of 15 specimens before me three only are of that sex.

Messrs. Godman and Salvin's collection contains a female from Sumatra (*Sachs*).

[1] *Nec* de Nicév., *vide* Zool. Record, 1889.